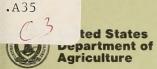
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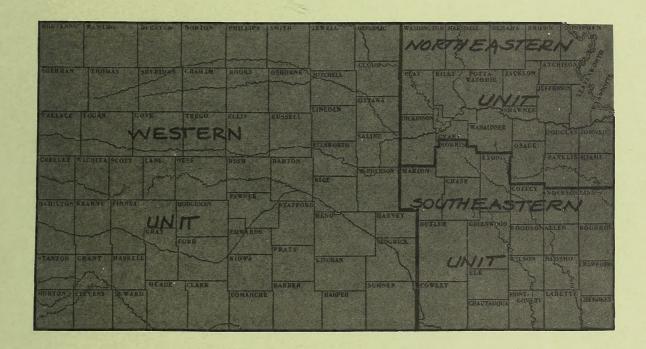
# Kansas Forest Statistics, 1981

Gerhard K. Raile and John S. Spencer, Jr.

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North Central Forest Experiment Station Forest Service—U.S. Department of Agriculture 1992 Folwell Avenue St. Paul, Minnesota 55108 Manuscript approved for publication May 13, 1983 June 1984 Information contained in this report includes the most commonly used Forest Inventory and Analysis (FIA) statistics. However, additional forest resource data can be provided to interested users. Persons requesting additional information that can be provided from the raw inventory data are expected to pay for the retrieval costs. These costs will vary depending on the complexity of the request, from less than \$100 for a relatively simple request to \$2,000 for a complete retrieval involving the services of a FIA computer programmer. If requests for data conflict with ongoing work, requests will be scheduled so as to minimize the impact on the work unit.

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### KANSAS FOREST STATISTICS, 1981

Gerhard K. Raile, Mensurationist, and John S. Spencer, Jr., Principal Resource Analyst

#### HIGHLIGHTS

#### Area

- Forest land area totaled 1.4 million acres—2.6 percent of the State's total land area.
- Productive-reserved forest land increased from 900 acres in 1965 to 22.400 acres in 1981.
- Nine percent of the State's forest land is unproductive forest.
- Commercial forest land increased by 1.4 percent between 1965 and 1981, from 1,191,500 to 1,207,900 acres.
- Commercial forest land is concentrated in the Northeastern (588,100 acres) and the Southeastern (437,000 acres) Survey Units.
- Nonindustrial private parties own 96 percent of the State's commercial forest land—farmers alone own 62 percent.
- The elm-ash-cottonwood (289,600 acres), oak-hickory (316,600) and lowland plains hardwoods (265,900) forest types account for 72 percent of the commercial area.
- Sawtimber stands account for 47 percent of the commercial forest, followed by sapling and seedling stands (30 percent), poletimber stands (19 percent), and nonstocked areas (4 percent).
- Stands up to 20 years of age occupy 29 percent of the commercial forest.
- Forty-three percent of the commercial forest is poorly stocked with growing-stock trees (16.7 to 60 percent stocked), 45 percent is medium stocked (61 to 100 percent stocked), and 8 percent is well stocked (101 to 133 percent stocked).

- Windbreaks occupy 186,300 acres.
- Wooded strips amount to 150,000 acres and are part of the 1.2 million acres of nonforest land with trees in the State. Wooded strips do not include windbreaks and would be commercial forest except for width.

#### Volume

- The total volume of timber in 1981 was 927.0 million cubic feet—711.3 million in growing-stock trees, 211.3 million in rough and rotten trees, and 4.4 million in salvable dead trees.
- Growing-stock volume in 1981 (711.3 million cubic feet) increased 42 percent from the 502.6 million cubic feet in 1965.
- Growing-stock volume per acre increased 40 percent from 422 cubic feet in 1965 to 589 cubic feet in 1981.
- Sawtimber volume on commercial forest land increased 31 percent from 1,953.5 million board feet in 1965 to 2,566.2 million board feet in 1981.
- Sawtimber volume per acre of commercial forest land increased 30 percent from 1,640 board feet in 1965 to 2.125 board feet in 1981.
- In addition to the sawtimber volume on commercial forest land, there were 147.9 million board feet in short-log trees, and 315.5 million board feet in sawtimber and short-log trees on wooded strips.
- Cottonwood accounts for the largest volume of growing stock on commercial forest land (19 percent), followed by hackberry (12 percent), ash (9 percent), bur oak (9 percent), and black walnut (8 percent).

- While nearly all species increased in volume between the two surveys, elm growing stock took a drastic drop due to Dutch elm disease—from 89.2 million cubic feet in 1965 to 30.6 million cubic feet in 1981. The drop in elm board foot volume was even more significant—from 358.3 million board feet in 1965 to 69.5 million board feet in 1981.
- Farmers own 427.2 million cubic feet of growing stock (60 percent of the total), and miscellaneous private parties own 243.2 million cubic feet (34 percent of the total).
- The lowland plains hardwoods type accounts for 25 percent of the growing-stock volume, the oak-hickory type for 27 percent, and the elm-ash-cottonwood type for 24 percent.

#### **Stand Conditions**

- Net annual growth of growing stock amounted to 23.2 million cubic feet in 1980 (3.3 percent of inventory) compared to 22.1 million in 1964 (4.4 percent of inventory).
- Sawtimber growth was 64.0 million board feet in 1980, 2.5 percent of inventory.
- Mortality of growing-stock trees totaled 3.8 million cubic feet in 1980—0.5 percent of inventory.
- Disease accounts for 40 percent of the mortality volume—more than any other known cause.
- Sawtimber volume by butt log grade is fairly evenly divided between the best 3 grades of the 4 log grades used.

#### **Timber Use**

Timber removals from growing stock totaled 14.0 million cubic feet in 1980—12.1 million for round-wood products, 1.1 million for other removals, and 0.8 million for logging residue.

- Removals of growing stock in 1980 are 68 percent higher than those in 1964.
- Farmers and miscellaneous private individuals owned 99.9 percent of the 1980 growing-stock removals.
- Sawtimber removals from commercial forest land totaled 53.3 million board feet in 1980—77 percent higher than in 1964.
- Timber products output totaled 25.0 million cubic feet in 1980—76 percent as fuelwood and 20 percent as saw logs.
- Output of saw logs, veneer logs and cooperage from all sources totaled 32.7 million board feet in 1980— a 50 percent increase over 1964.
- Wood residue from primary plants amounted to 2.7 million cubic feet in 1980—one fourth of it was not used.

#### **Biomass**

- Live tree biomass (trees greater than 1-inch in d.b.h.) totaled 53.3 million green tons (an average of 44 tons per acre) in 1981.
- Fifty-six percent of the live tree biomass is in the boles of trees greater than 5-inches d.b.h., 30 percent is in tops and limbs of trees greater than 5-inches d.b.h., and 14 percent is in trees less than 5-inches d.b.h.
- Highest yields per acre of live tree biomass (green weight) are in the cottonwood type (77 tons), the lowland plains hardwoods type (48 tons), the oakhickory type (47 tons), and the post-blackjack oak type (46 tons)

#### **APPENDIX**

#### ACCURACY OF SURVEY

Forest Inventory and Analysis information is based on a sampling procedure designed to provide reliable statistics at the State and Survey Unit levels. Consequently, the reported figures are estimates only. However, a measure of reliability of these figures is given by sampling errors. These sampling errors mean that the chances are two out of three that if a l00-percent inventory had been taken, using the same methods, the results would have been within the limits indicated.

For example, the estimated area of commercial forest land in Kansas in 1981, 1,207,900 acres, has a sampling error of  $\pm 2.45$  percent ( $\pm 29,600$  acres). The commercial forest area from a 100-percent inventory, then, would be expected to fall between 1,237,500 and 1,178,300 acres (1,207,900 $\pm 29,600$ ), there being a one in three chance that this is not the case.

The following tabulation shows sampling errors for State totals of information collected during the 1981 Kansas Forest Inventory:

Item	Kansas totals	Sampling error
Growing stock	(Million cubic feet)	(Percent)
Volume	711.3	3.52
Growth	26.2	5.61
Removals	14.0	17.00
Sawtimber	(Million board feet)	
Volume	2,566.2	4.24
Growth	80.8	6.44
Removals	53.2	20.10
Commercial forest land	(Thousand acres)	
Area	1,207.9	2.45

As survey data are broken down into sections smaller than State or Survey Unit totals, the sampling error increases. The smaller the breakdown, the larger the sampling error. For example, the sampling error for area of commercial forest land in a particular county is higher than that for total commercial forest area in the Survey Unit (table 102 shows the sampling errors for estimates smaller than State totals).

#### SURVEY PROCEDURE

The major steps in the survey of Kansas were as follows:

- 1. A total of 275,271 1-acre points were systematically distributed across aerial photos of the entire State. Photo interpretors classified these points as forest land (9,570), nonforest land with trees (5,208), nonforest land without trees (258,420), questionable (424), and water (1,649) to make a preliminary estimate of forest area. Next, all of the forest points (9.570), 543 of the nonforest with tree points, and all of the questionable points (424) were stereoclassified as to forest type, stand-size class, and density. Then, 1,386 points classed as forest, 96 points classed as questionable, and 543 points classed as nonforest with trees were examined on the ground to correct the preliminary area estimate for errors in classification and for actual changes in land use since the photos were taken. At each of 937 locations classed as commercial forest, variable-radius plots (basal area factor 37.5) were established at 10 points uniformly placed over the sample acre. Two hundred twentytwo of these 937 locations were plots established during the 1965 survey and remeasured during the 1981 survey to provide improved growth and mortality information. Tree measurements made at commercial forest locations were the basis for estimates of timber volume, growth, mortality, number of trees, and other forest classifications.
- 2. An estimate of the volume of black walnut on nonforest land was made by establishing 10-point, variable-radius plots on nonforest ground check locations wherever black walnut trees were found. This included black walnut trees found on fence rows or as scattered trees but did not include walnut trees in urban areas, lawns, or in other areas where they would probably not be harvested.
- 3. An estimate of the volume of timber on nonforest wooded strips was made by establishing 10point fixed-radius plots on wooded strip ground check locations. The design and size of these plcts were adjusted to allow for the narrowness of the strips.
- 4. Growth and mortality on commercial forest land were estimated using data collected on both remeasurement plots (those established in 1965 and remeasured in 1981) and new plots established in 1981. On remeasurement plots growth was calculated as the observed change in volume on surviving trees. On new plots growth was estimated by using growth equations developed during the 1972 Missouri survey. Mortality on remeasurement plots was calculated as the observed volume in trees that died between surveys. And mortality on new plots was

estimated by determining the volume in trees that died within 3 years of plot establishment. Growth and mortality were converted to an annual basis.

- 5. Statistics on timber utilization during 1980 were obtained from mill surveys. State and Extension Forestry, Kansas State University canvassed resident sawmills and other primary wood-using plants. The North Central Forest Experiment Station canvassed out-of-State primary wood-using mills such as sawmills and veneer mills to determine their use of Kansas timber. State and Extension Forestry estimated 1980 fuelwood and post production from roundwood based on the best information available on recent output of these products. Estimates of primary mill residue used for fuelwood were obtained from the canvass of Kansas primary wood-using plants. Timber cut for products by ownership class was determined by a canvass of public and industrial timber owners. The portion of timber harvest unaccounted for by the latter owners was grouped under "farmer and other owners".
- 6. Wood utilization factors for converting timber products output to timber removals for saw logs, veneer logs, and cooperage logs were obtained during the 1971-1972 Missouri utilization study. Factors for fuelwood were obtained during the 1964 Kansas utilization study. Factors for all other products were obtained during the 1959-1960 Missouri utilization study.
- 7. Field data were sent to St. Paul, Minnesota, for processing and analysis.

# COMPARING KANSAS' THIRD SURVEY WITH THE SECOND SURVEY

Data from new forest surveys are often compared with data from earlier ones to determine trends in forest areas and volumes. Changes in procedures and definitions between surveys make it necessary to adjust earlier survey data so they are comparable to data from the new survey.

We adjusted the published 1965 area of commercial forest land, 1,192,400 acres, by subtracting 900 acres that were classed commercial forest in 1965 but were Christmas tree production areas (productive-reserved forest land) in 1981. The adjusted 1965 area (1,191,500 acres) can be compared directly with the 1981 area (1,207,900 acres).

A test was made to ensure that it was possible to move from the adjusted 1965 volumes to the new 1981 volumes by means of Timber Resource Analysis System (TRAS), a Forest Service computer program for updating, backdating, and projecting timber volume, growth, mortality, and removals. TRAS then recalculated 1965 volumes using 1981 estimates of cubic foot volume per tree and 1981 board foot-cubic foot ratios. This volume adjustment was necessary so that volume differences between surveys represented actual change and not merely change in the volume equations used on each occasion.

#### LOG GRADE

In Kansas the butt log of every sawtimber tree was graded for quality on every full permanent sample plot, remeasurement plot, and nonforest plot with black walnut trees (4,194 trees). Logs were graded on the basis of external characteristics. Hardwood species were graded according to "Hardwood Log Grades for Standard Lumber". The best 12-foot section of the lowest 16-foot hardwood log, or the best 12-foot upper section if the butt log did not meet minimum log-grade standards, was graded as follows:

<sup>&</sup>lt;sup>1</sup>Vaughn, C. L.; Wollin, C. A.; McDonald, K. A.; Bulgrin, E. H. Hardwood log grades for standard lumber. Res. Pap. FPL 63, Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory; 1966. 52 p.

### Forest Service standard grades for hardwood factory saw logs

					Speci	fications			
Grading factors			Log grade 1			Log g	rade 2		Log grade 3
Position in tree		Butts only		itts and ippers		Bu	itts and up	pers	Butts and uppers
Scaling diameter, inc	ches	113-15	16-19	20+	211+		12+		8+
Length without trim,	, feet		10+		10+	8-9	10-11	12+	8+
	Min. length, feet	7	5	3	3	3	3	3	2
Required	Max. number	2	2	2	2	2	2	3	No Limit
clear cuttings <sup>3</sup> of each of three best faces <sup>4</sup>	Min. proportion of log length required in clear cutting	<sup>5</sup> / <sub>6</sub>	5/6	5/6	2/3	3/4	2/3	2/3	1/2
Maximum	For logs with less than one-fourth of end in sound defects		15 percent			30 pc	ercent		50 percent
sweep and crook allowance	For logs with more than one-fourth of end in sound defects		10 percent			20 pe	ercent		35 percent
Maximum scaling de	eduction	4	10 percent <sup>5</sup>			50 pe	rcent <sup>6</sup>		50 percent

<sup>&</sup>lt;sup>1</sup>Ash and basswood butts can be 12 inches if they otherwise meet requirements for small #1's.

<sup>&</sup>lt;sup>2</sup>Ten-inch logs of all species can be #2's if they otherwise meet requirements for small #1's. 
<sup>3</sup>A clear cutting is a portion of a face, extending the width of the face, that is free of defects.

<sup>&</sup>lt;sup>4</sup>A face is one-fourth of the surface of the log as divided lengthwise.
<sup>5</sup>Otherwise #1 logs with 41-60 percent deductions can be #2.
<sup>6</sup>Otherwise #2 logs with 51-60 percent deductions can be #3.

# Forest Service standard specifications for hardwood construction logs (tie and timber logs)

Position in tree		Butt and upper
Min. diameter, small end		8 inches +
Min. length, without trim		8 feet
Clear cuttings		No requirements.
Sweep allowance, absolute	)	One-fourth of the diameter at the small end for each 8 feet of length.
	Single knots	Any number, if no one knot has an average diameter above the callus in excess of one-third of the log diameter at point of occurrence.
Sound surface defects	Whorled knots	Any number if sum of knot diameters above the callus does not exceed one-third of the log diameter at point of occurrence.
	Holes	Any number provided none has a diameter over one- third of the log diameter at point of occurrence, and none extends more than 3 inches into included timber. <sup>2</sup>
Unsound surface defects		Same requirements as for sound defects if they extend into included timber. 2 No limit if they do not.
	Sound	No requirements.
End defects	Unsound	None allowed; log must be sound internally, but will admit one shake not to exceed one-fourth the scaling diameter and will admit a longitudinal split not extending more than 5 inches into the contained timber.

<sup>&</sup>lt;sup>1</sup>These specifications are minimum for the class. If, from a group of logs, factory logs are selected first, thus leaving only non-factory logs from which to select construction logs, then the quality range of the construction logs so selected is limited, and the class may be considered a grade. If selection of construction logs is given first priority, then it may be necessary to subdivide the class into grades.

<sup>2</sup>Included timber is always square, and dimension is judged from small end.

Softwood species were graded according to the following specifications:

#### Log Grades for Softwood Logs

#### Grade 1

- 1. Logs must be 16 inches or larger, 10 feet or longer, and with deduction for defect not over 30 percent of gross scale.
- 2. Logs must be at least 75 percent clear on each of three faces.
- 3. All knots outside clear cutting must be sound and not over  $2^{-1/2}$  inches in diameter.

#### Grade 2

- 1. Logs must be 12 inches or larger, 10 feet or longer, and with a net scale after deduction for defect of at least 50 percent of the gross contents of the log.
- 2. Logs must be at least 50 percent clear on each of three faces or 75 percent clear on two faces.

#### Grade 3

- 1. Logs must be 6 inches or larger, 8 feet or longer, and with a net scale after deduction for defect of at least 50 percent of the gross contents of the log.
- Note: (A) Diameters are diameter inside bark at small end of log.
  - (B) Percent clear refers to percent clear in one continuous section.

#### PRINCIPAL TREE SPECIES GROUPS IN KANSAS<sup>2</sup>

Softwoods
Eastern redcedar Juniperus virginiana
Hardwoods
Bur oak Quercus macrocarpa
Select white oak
White oakQuercus alba
Chinkapin oak Quercus muehlenbergii
Other white oak
Post oak Quercus stellata

<sup>&</sup>lt;sup>2</sup>The common and scientific names are based on: Little, Elbert L., Jr. Checklist of United States Trees (Native and Naturalized). Agric. Handb. 541. Washington, DC: U.S. Department of Agriculture, Forest Service; 1979. 375 p.

Select red oak
Northern red oak Quercus rubra
Shumard oak Quercus shumardii
Other red oak
Black oak Quercus velutina
Blackjack oak Quercus marilandica
Pin oak Quercus palustris
Shingle oakQuercus imbricaria
Hickory
Shellbark hickory Carya laciniosa
Mockernut hickory Carya tomentosa
Shagbark hickory Carya ovata
Bitternut hickory Carya cordiformis
Black hickory Carya texana
Pecan
Hard maple
Sugar maple Acer saccharum
Soft maple
Silver maple Acer saccharinum
Ash
Green ash
White ash Fraxinus americana
Cottonwood
Eastern cottonwood Populus deltoides
Basswood
American basswood Tilia americana
Elm
American elmUlmus americana
Siberian elmUlmus pumila
Slippery elmUlmus rubra
Black walnut Juglans nigra
Willow
Black willow Salix nigra
Boxelder
Hackberry Celtis occidentalis
Sycamore
American sycamore Platanus occidentalis
Other hardwood
Black cherry Prunus serotina
Black locust Robinia pseudoacacia
Honeylocust
Kentucky coffeetree Gymnocladus dioicus
Northern catalpa Catalpa speciosa
Common persimmon Diospyros virginiana
Red mulberry Morus rubra
River birch Betula nigra
SugarberryCeltis laevigata
Texas buckeye Aesculus glabra var. arguta
Total buomoyo gata yan a yan a yan

#### METRIC EQUIVALENTS OF UNITS USED IN THIS REPORT

1 acre = 4,046.86 square meters or 0.405 hectare. 1,000 acres = 405 hectares.

1,000 board feet (International <sup>1</sup>/<sub>4</sub>-inch log rule) = 3.48 cubic meters.

Breast height = 1.4 meters above the ground.

1 cubic foot = 0.0283 cubic meter.

1 foot = 30.48 centimeters or 0.3048 meter.

1 inch = 25.4 millimeters, 2.54 centimeters, or 0.0254 meter.

#### **DEFINITION OF TERMS**

**Acceptable trees.**—Growing-stock trees of commercial species that meet specified standards of size and quality but do not qualify as desirable trees.

**Area-condition classes.**—*Class 10.*—Areas fully stocked with desirable trees but not overstocked.

Class 20.—Areas fully stocked with desirable trees, but overstocked with all live trees.

Class 30.—Areas medium to fully stocked with desirable trees, and with less than 30 percent of the area controlled by other trees and/or inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Class 40.—Areas medium to fully stocked with desirable trees and with 30 percent or more of the area controlled by other trees and/or conditions that ordinarily prevent occupancy by desirable trees

*Class* 50.—Areas poorly stocked with desirable trees, but fully stocked with growing-stock trees.

Class 60.—Areas poorly stocked with desirable trees, but with medium to full stocking of growing-stock trees.

Class 70.—Areas poorly stocked with desirable trees and poorly stocked with growing-stock trees.

Basal area.—The area in square feet of the cross section at breast height of a single tree. When the basal area of all trees in a stand are summed, the result is usually expressed as square feet of basal area per acre.

**Biomass.**—The above-ground volume of all live trees (including bark and foliage) reported in green tons. Biomass is made up of 5 components:

*Growing-stock bole.*—Biomass of a growing-stock tree from a 1-foot stump to a variable 4-inch top.

*Growing-stock tops and limbs.*—Biomass of a growing-stock tree from a 1-foot stump minus the growing-stock bole.

*Cull bole.*—Biomass of a cull tree from a 1-foot stump to a variable 4-inch top.

*Cull tops and limbs.*—Biomass of a cull tree from a 1-inch stump minus the cull bole.

*1- to 5-inch trees.*—Biomass of all live trees 1-to 5-inches in diameter at breast height.

Commercial forest land.—Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization. (Note: Areas qualifying as commercial forest land have the capability of producing in excess of 20 cubic feet per acre per year of annual growth under management. Currently inaccessible and inoperable areas are included, except when the areas involved are small and unlikely to become suitable for production of industrial wood in the foreseeable future.) Also see definition of pastured commercial forest land.

Commercial species.—Tree species presently or prospectively suitable for industrial wood products. (Note: Excludes species of typically small size, poor form, or inferior quality such as hophornbeam and hawthorn.)

County and municipal land.—Lands owned by counties and local public agencies or municipalities, or lands leased to these governmental units for 50 years or more.

**Cull.**—Portions of a tree that are unusable for industrial wood products, because of rot, form, or other defect.

Desirable trees.—Growing-stock trees having no serious defects in quality limiting present or prospective use, and of relatively high vigor, and containing no pathogens that may result in death or serious deterioration before rotation age. These are trees that would be favored by forest managers in silvicultural operations.

Diameter classes.—A classification of trees based on diameter outside bark, measured at breast height (4-1/2 feet above the ground). (Note: d.b.h. is the common abbreviation for diameter at breast height. Two-inch diameter classes are commonly used in Forest Inventory and Analysis, with the

even inch the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h. inclusive).

**Farm.**—Any place from which \$1,000 or more of agricultural products were sold or normally would have been sold during the year.

**Farmer-owned land.**—Land owned by operators of farms. (Note: Excludes land leased by farm operators from nonfarm owners, such as railroad companies and States.)

Forest land.—Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. (Note: Stocking is measured by comparison of basal area and/or number of trees, by age or size and spacing with specified standards.) The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width at least 120 feet to qualify as forest land. Unimproved roads and trails, streams, or other bodies of water or clearings in forest areas shall be classed as forest if less than 120 feet in width. Also see definitions of land area, commercial forest land, noncommercial forest land, productive-reserved forest land, stocking, unproductive forest land, nonforest land, and water.

**Forest industry land.**—Land owned by companies or individuals operating primary wood-using plants.

**Forest trees.**—Woody plants having a well-developed stem and usually more than 12 feet in height at maturity.

**Forest types.**—A classification of forest land based upon the species forming a plurality of live tree stocking. Major forest types in Kansas are:

Eastern redcedar-hardwood.—Forests in which hardwoods comprise a plurality of the stocking but in which eastern redcedar comprises 25 percent or more of the stocking. Found on dry uplands, usually abandoned pastures or fields.

Oak-hickory.—Forests in which upland oaks (white, northern red, black) or hickory, singly or in combination, comprise a plurality of the stocking, except for stands classed as eastern redcedar-hardwood or as post-blackjack oak. Occurs on a variety of soils.

Post-blackjack oak.—Forests in which post oak or blackjack oak, singly or in combination, com-

prise a majority of the stocking. Occurs on dry uplands and ridges.

*Upland plains hardwoods.*—Forests in which black walnut, hackberry, and bur oak, singly or in combination, comprise a plurality of the stocking. Commonly found on slopes and uplands.

*Elm-ash-cottonwood*.—Lowland forest in which elm, ash, cottonwood, and willow, singly or in combination, comprise a plurality of the stocking, except for those in which cottonwood or willow comprise a majority of the stocking. Found on first or second bottoms of major streams.

Cottonwood.—Forests in which cottonwood comprises a majority of the stocking.

*Willow.*—Forests in which willow comprises a majority of the stocking.

Lowland plains hardwoods.—Forests in which black walnut, hackberry, bur oak, soft maple, and boxelder, singly or in combination, comprise a plurality of the stocking. Commonly found in coves and bottomlands.

*Upland elm-ash-locust.*—Upland forests in which elm, ash, and honeylocust, singly or in combination, comprise a plurality of the stocking. Includes shelterbelts and windbreaks on sites drier than those commonly associated with lowland species.

**Gross area.**—The entire area of land and water as determined by the Bureau of the Census, 1980.

**Growing-stock trees.**—Live trees of commercial species qualifying as desirable and acceptable trees. (Note: Excludes rough, rotten, and dead trees.)

Growing-stock volume.—Net volume in cubic feet of growing-stock trees 5.0 inches d.b.h. and over, from a 1-foot stump to a minimum 4.0 inch top diameter outside bark of the central stem or to the point where the central stem breaks into limbs. Cubic feet can be converted to cords by dividing by 79 cubic feet per solid wood cord.

Hardwoods.—Dicotyledonous trees, usually broadleaved and deciduous.

Idle farmland.—Includes former croplands, orchards, improved pastures, and farm sites not tended within the past 2 years and presently less than 16.7 percent stocked with trees.

**Improved pasture.**—Land currently improved for grazing by cultivating, seeding, irrigating, or clearing of trees or brush, and less than 16.7 percent stocked with live trees.

- **Indian lands.**—Tribal lands held in fee but administered by the Federal Government.
- Land area.—A. Bureau of the Census. The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains (omitting tidal flats below mean high tide); streams, sloughs, estuaries, and canals less than one-eighth of a statute mile in width; and lakes, reservoirs, and ponds less than 40 acres in area.

B. Forest Inventory and Analysis. The same as the Bureau of the Census, except minimum width of streams, etc. is 120 feet and minimum size of lakes, etc. is 1 acre.

- **Live trees.**—Growing-stock, rough, and rotten trees 1 inch d.b.h. and larger.
- **Log grades.**—A classification of logs based on external characteristics as indicators of quality or value. (See Appendix for specific grading factors used.)
- **Logging residues.**—The unused growing-stock portions of trees cut or killed by logging.
- Maintained road.—Any road, hard-topped or other surfaces, that is plowed or graded at least once a year. Includes rights-of-way that are cut or treated to limit herbaceous growth.
- Marsh.—Nonforest land that characteristically supports low, generally herbaceous or shrubby vegetation and that is intermittently covered with water.
- Merchantable.—Refers to a pulpwood or saw log section that meets pulpwood or saw log specifications, respectively.
- Miscellaneous federal lands.—Federal land other than National Forest, primarily land administered by the Bureau of Land Management.
- Miscellaneous private lands.—Privately owned lands other than forest industry and farmer-owned land.
- Mortality.—The volume of sound wood in growingstock and sawtimber trees that die annually.
- National forest land.—Federal lands that have been legally designated as National Forests or purchase units, and other lands under the administration of the USDA Forest Service.

- Net annual growth of growing stock.—The annual change in volume of sound wood in live saw-timber and poletimber trees and the total volume of trees entering these classes through ingrowth, less volume losses resulting from natural causes.
- Net annual growth of sawtimber.—The annual change in the volume of live sawtimber trees and the total volume of trees reaching sawtimber size, less volume losses resulting from natural causes.
- **Net volume.**—Gross volume less deductions for rot, sweep, or other defect affecting use for timber products.
- **Noncommercial forest land.**—(a) Unproductive forest land and (b) productive-reserved forest land. See definition of unproductive and productive-reserved forest land.
- Noncommercial species.—Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.
- Nonforest land.—Land that has never supported forests, and lands formerly forested where use for timber management is precluded by development for other uses. (Note: Includes areas used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 40-acre areas of water classified by the Bureau of the Census as land. If intermingled in forest areas, unimproved roads and nonforest strips must be more than 120 feet wide, and more than 1 acre in size, to qualify as nonforest land.)
  - A. Nonforest land without trees.—Nonforest land with no live trees present.
  - B. Nonforest land with trees.—Nonforest land with one or more trees at least 5 inches d.b.h. per acre.
- Nonstocked land.—Commercial forest land less than 16.7 percent stocked with growing-stock trees.
- Other removals.—Growing-stock trees removed but not utilized for products, or trees left standing but "removed" from the commercial forest land classification by land use change. Examples are removals from cultural operations such as timber stand improvement work, land clearing, and changes in land use.
- Ownership.—Property owned by one owner, regardless of the number of parcels in a specified area.

- Ownership size class.—The amount of commercial forest land owned by one owner, regardless of the number of parcels.
- **Owner tenure.**—The length of time a property has been held by the owner.
- Pastured commercial forest land.—Commercial forest land for which the primary use is wood production, but is presently used for grazing.
- **Physiographic class.**—A measure of soil and water conditions that affect tree growth on a site. Physiographic classes used in Forest Inventory and Analysis inventories are:

*Xeric sites.*—Very dry droughty sites where excessive drainage seriously limits both growth and species occurrence. These sites are usually on upland and upper half slopes.

*Xeromesic sites*.—Moderately dry soils where excessive drainage limits growth and species occurrence to some extent. These sites are usually on the lower half slope.

*Mesic sites*.—Deep, well-drained soils. Growth and species occurrence are limited only by climate. These include all cove sites and bottomlands along intermittent streams.

Hydromesic sites.—Moderately wet soils where insufficient drainage or infrequent flooding limits growth and species occurrence to some extent. These include first and second bottoms on all major creeks and rivers.

*Hydric sites.*—Very wet sites where excess water seriously limits both growth and species occurrence.

- **Plant byproducts.**—Plant residues used for products such as mulch, pulp chips, and fuelwood.
- **Plant residues.**—Wood and bark materials generated at manufacturing plants during production of other products.
- Poletimber stands.—(See stand-size class.)
- **Poletimber trees.**—Growing-stock trees of commercial species at least 5.0 inches in d.b.h., but smaller than sawtimber size.
- Productive-reserved forest land.—Forest land sufficiently productive to qualify as commercial forest land, but withdrawn from timber utilization through statute, administration regulation, designation, or exclusive use for Christmas tree production, as indicated by annual shearing.

- Rotten trees.—Live trees of commercial species that do not contain at least one 12-foot saw log or two saw logs 8 feet or longer, now or prospectively, and/or do not meet Regional specifications for freedom from defect primarily because of rot; that is, when more than 50 percent of the cull volume in a tree is rotten.
- Rough trees.—(a) Live trees of commercial species that do not contain at least one merchantable 12-foot saw log or two saw logs 8 feet or longer, now or prospectively, and/or do not meet Regional specifications for freedom from defect primarily because of roughness or poor form, and (b) all live trees of noncommercial species.
- Roundwood products.—Logs, bolts, or other round sections (including chips from roundwood) cut from trees for industrial or consumer uses. (Note: Includes saw logs, veneer logs and bolts; cooperage logs and bolts; pulpwood; fuelwood; piling; poles; posts; hewn ties; mine timbers; and various other round, split, or hewn products.)
- Salvable dead trees.—Standing or down dead trees that are considered merchantable by Regional standards.
- Saplings.—Live trees 1.0 to 5.0 inches d.b.h.
- Sapling-seedling stands.—(See stand-size class.)
- Saw log.—A log meeting minimum standards of diameter, length and quality, including logs at least 8 feet long, sound and straight and with a minimum diameter outside bark (d.o.b.) for softwoods of 7 inches (9 inches for hardwoods) or other combinations of size and defect specified by Regional standards.
- **Saw log portion.**—That part of the bole of sawtimber trees between the stump and the saw log top.
- **Saw log top.**—The point on the bole of sawtimber trees above which a saw log cannot be produced. The minimum saw log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods.
- **Sawtimber stands.**—(See stand-size class.)
- Sawtimber trees.—Growing-stock trees of commercial species containing at least a 12-foot saw log or two noncontiguous saw logs 8 feet or longer, and meeting Regional specifications for freedom from defect. Softwoods must be at least 9.0 inches d.b.h. Hardwoods must be at least 11.0 inches d.b.h.

- Sawtimber volume.—Net volume of the saw log portion of live sawtimber in board feet, International ¼-inch rule, from stump to a minimum 7 inches top d.o.b. for softwoods and a minimum 9 inches top d.o.b. for hardwoods.
- **Seedlings.**—Live trees less than 1.0 inch in d.b.h. that are expected to survive. Only softwood seedlings more than 6 inches tall and hardwood seedlings more than 1 foot tall are counted.
- **Short-log** (rough tree).—Live trees of commercial species that contain one merchantable 8- to 11-foot saw log but not a 12-foot saw log, now or prospectively.
- **Shrub biomass.**—The total above-ground volume (including the bark) of selected shrubs and trees less than 1-inch d.b.h.
- **Site classes.**—A classification of forest land in terms of inherent capacity to grow crops of industrial wood based on fully-stocked natural stands.
- **Site index.**—An expression of forest site quality based on the height of a free-growing dominant or codominant tree of a representative species in the forest type at age 50.
- **Softwoods.**—Coniferous trees, usually evergreen, having needles or scale-like leaves.
- **Stand.**—A growth of trees on a minimum of 1 acre of forest land that is stocked by forest trees of any size.
- **Stand-age class.**—Age of the main stand. Main stand refers to trees of the dominant forest type and stand-size class.
- **Stand-area class.**—The extent of a continuous forested area of the same forest type, stand-size class, and stand-density class.
- **Stand-size class.**—A classification of forest land based on the size class of growing-stock trees on the area; that is, sawtimber, poletimber or seedlings and saplings.

Sawtimber stands.—Stands at least 16.7 percent stocked with growing-stock trees, with half or more of total stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands.—Stands at least 16.7 percent stocked with growing-stock trees of which

half or more of this stocking is in poletimber and/ or sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands.—Stands at least 16.7 percent stocked with growing-stock trees of which more than half of the stocking is saplings and/or seedlings.

Nonstocked stands.—Stands in which stocking of growing-stock trees is less than 16.7 percent.

- State lands.—Lands owned by States, or lands leased to these governmental units for 50 years or more.
- **Stocking.**—The degree of occupancy of land by trees, measured by basal area and/or the number of trees in a stand by size or age and spacing, compared to the basal area and/or number of trees required to fully utilize the growth potential of the land; that is, the stocking standard.

A stocking percent of 100 indicates full utilization of the site and is equivalent to 80 square feet of basal area per acre in trees 5 inches d.b.h. and larger. In a stand of trees less than 5 inches d.b.h., a stocking percent of 100 would indicate that the present number of trees is sufficient to produce 80 square feet of basal area per acre when the trees reach 5 inches d.b.h.

Stands are grouped into the following stocking classes:

*Overstocked stands*.—Stands in which stocking of trees is 134.0 percent or more.

Fully stocked stands.—Stands in which stocking of trees is from 101.0 to 133.9 percent.

*Medium stocked stands*.—Stands in which stocking of trees is from 61.0 to 100.9 percent.

*Poorly stocked stands*.—Stands in which stocking of trees is from 16.7 to 60.9 percent.

*Nonstocked areas.*—Commercial forest land on which stocking of trees is less than 16.7 percent.

- Timber removals from growing stock.—The volume of sound wood in growing-stock trees removed annually for forest products (including roundwood products and logging residues) and for other removals.
- Timber removals from sawtimber.—The net boardfoot volume of live sawtimber trees removed for forest products annually (including roundwood products and logging residues) and for other removals.

Timber products output.—All timber products cut from roundwood and byproducts of wood manufacturing plants. Roundwood products include logs, bolts, or other round sections cut from growing-stock trees, cull trees, salvable dead trees, trees on nonforest land, noncommercial species, sapling-size trees, and limbwood. Byproducts from primary manufacturing plants include slabs, edging, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, and screenings of pulpmills that are used as pulpwood chips or other products.

**Tree biomass.**—The total above-ground volume (including the bark) of all trees 1 to 5 inches in d.b.h., and the total above-ground volume (including the bark) from a 1-foot stump for trees more than 5 inches in d.b.h.

Tree size class.—A classification of trees based on diameter at breast height, including sawtimber trees, poletimber trees, saplings, and seedlings.

Unproductive forest land.—Forest land incapable of producing 20 cubic feet per acre of annual growth or of yielding crops of industrial wood under natural conditions because of adverse site conditions. (Note: Adverse conditions include shallow soils, dry climate, poor drainage, high elevation, steepness, and rockiness.

**Upper stem portion.**—That part of the bole of saw-timber trees above the saw log top to a minimum top diameter of 4.0 inches outside bark or to the point where the central stem breaks into limbs.

Urban and other areas.—Areas within the legal boundaries of cities, and towns; suburban areas developed for residential, industrial, or recreational purposes; schoolyards; cemeteries; roads; railroads; airports; beaches; powerlines; and other rights-of-way; or other nonforest land not included in any other specified land use class.

**Water.**—(a) *Bureau of the Census.*—Streams, sloughs, estuaries, and canals more than ½ of a statute mile wide; and lakes, reservoirs, and ponds more than 40 acres in area.

(b) *Noncensus*.—The same as the Bureau of the Census, except minimum width of streams, etc. is 120 feet and minimum size of lakes, etc. is 1 acre.

Windbreak.—A group of trees less than 120 feet wide used for the protection of soil, cropfields, and buildings in use.

Wooded pasture.—Improved pasture with more than 16.7 percent stocking in live trees but less than 25 percent stocking in growing-stock trees. Area is currently improved for grazing or there is other evidence of grazing. (Nonforest land with trees).

Wooded strips.—An acre or more of natural continuous forest land that would otherwise meet survey standards for commercial forest land except that it is less than 120 feet wide. (Nonforest land with trees.)

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Table 1.--Area of land by land class, Kansas, 1965 and 1981 (In thousand acres)

Land class	$1965\frac{1}{-}$	1981
Forest land		
Commercial forest land		
Eastern redcedar-hardwood	2.7	27.5
Oak-hickory	185.3	316.6
Post-blackjack oak	27.3	30.9
Upland plains hardwoods	113.1	49.4
Elm-ash-cottonwood	192.9	289.6
Cottonwood	65.0	68.1
Willow	8.7	4.2
Lowland plains hardwoods	220.7	265.9
Upland elm-ash-locust	228.6	110.3
Nonstocked .	147.2	45.4
Subtotal	1,191.5	1,207.9
Noncommercial forest land		
Unproductive	157.4	128.4
Productive-reserved	0.9	22.4
Subtotal	158.3	150.8
Total	1,349.8	1,358.7
Nonforest land	51,160.9	50,979.3
All land	52,510.7	52,338.0

 $<sup>\</sup>frac{1}{F}$  Figures have been adjusted from those published after the 1965 survey to conform to 1981 areas because of changes in survey definitions and procedures.

Table 2.--Area of land by land class and Forest Survey Unit, Kansas, 1981 (In thousand acres)

		For	est Survey U	nit
Land class	All units	North- eastern unit	South- eastern unit	Western unit
FOREST LAND				
Commercial forest land				
Unpastured commercial forest	825.1	401.4	284.5	139.2
Pastured commercial forest $1/$	382.8	186.7	152.5	43.6
Subtotal	1,207.9	588.1	437.0	182.8
Noncommercial forest land				
Unproductive	128.4	21.0	97.0	10.4
Productive-reserved	22.4	15.1	2.3	5.0
Subtotal	150.8	36.1	99.3	15.4
Total	1,358.7	624.2	536.3	198.2
NONFOREST LAND				
Nonforest with trees				
Cropland	63.0	30.2	13.6	19.2
Improved pasture2/	533.6	139.4	225.2	169.0
Wooded strips3/	150.0	62.6	50.3	37.1
Idle farmland	23.9	4.1	2.5	17.3
Marsh	22.7	4.2	4.3	14.2
Windbreaks <u>4</u> /	186.3	43.0	66.9	76.4
Wooded pasture <u>2</u> /	209.8	60.5	95.2	54.1
Subtotal	1,189.3	344.0	458.0	387.3
Nonforest without trees				
Cropland	32,163.2	5,026.1	3,850.3	23,286.8
Improved pasture2/	15,827.4	1,922.7	4,549.0	9,355.7
Idle farmland	7.5	2.9	4.6	0
Marsh	56.3	1.5	6.9	47.9
Other farm-farmstead	198.9	67.0	35.4	96.5
Urban and other	1,417.9	374.3	338.5	705.1
Noncensus water	118.8	32.2	34.3	52.3
Subtota1	49,790.0	7,426.7	8,819.0	33,544.3
Total	50,979.3	7,770.7	9,277.0	33,931.6
TOTAL LAND <sup>5</sup> /	52,338.0	8,394.9	9,813.3	34,129.8
WATER (BUREAU OF THE CENSUS) <sup>5</sup> /	319.5	155.9	77.5	86.1
TOTAL LAND AND WATER <sup>5</sup> /	52,657.5	8,550.8	9,890.8	34,215.9

 $<sup>\</sup>frac{1}{F}$ Forest land for which the primary use is wood production, but is used for

would otherwise meet survey standards.

4/A group of trees less than 120 feet wide used for the protection of soil, cropfields, and buildings in use.

5/U.S. Department of Commerce, Bureau of the Census. 1980. State/county area

measurement reports (unpublished).

grazing.

2/Includes areas classified as range by the USDA Soil Conservation Service.

3/An acre or more of natural continuous forest land less than 120 feet wide that

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All brees strips with trees  Thousand acres  Thousand acres  1.8 6.5  20.5 5.0 0.9  22.6 3.0 1.2  23.2 5.9  13.0 1.2  23.1 1.8 6.5  23.2 5.9  14.6 6.5 6.9  23.1 1.8 6.5  23.2 1.7  20.1 1.8 6.5  20.4 3.7 16.7  20.1 2.2 17.8  20.1 2.2 17.8  20.1 2.2 17.8  20.1 2.2 12.5  14.8 2.2 12.5  14.8 2.2 12.5  14.9 2.9 12.9  14.4 6.5 29.4  14.4 2.1 12.9  14.4 2.1 12.9  14.4 2.9 12.9  14.5 5.1 2.9  14.6 6.5 5.8  24.7 6.6 5.9  14.7 5.1 2.8  24.8 6.5 29.4  11.5 1.5 1.5  24.9 3.2 2.1  11.5 2.4 9.1  25.1 1.5 1.5  26.9 1.7  27.1 1.5 1.5  28.0 0.8 5.8  28.0 0.5  11.5 1.7  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.4  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.5  11.5 2.	Land, All Non- area, Commercia  ison 275.7 24.8 1.0  inson 245.8 19.7 1.0  than 404.2 16.0 0.7  than 246.9 20.9 1.2  son 365.9 1.0  than 420.9 33.5 1.1  son 365.9 4.4  than 44.7 34.4 3.2  watomie 529.8 44.4 3.2  watomie 529.8 44.4 3.2  than 44.7 34.4 3.2  than 45.9 624.2 36.1  than 46.0 33.5 12.5  ey 33.5 19.5  than 40.8 4 4 4 4 3.2  than 40.0 37.4 9.7  than 40.0 37.9  than 40.0 37.9  the 33.8  than 40.0 37.9  than 40.0 37.4 9.7  the 38.4 56.6  the 41.3 3.2  the 60.9  than 40.1 3.8  the 60.9  than 40.1 3.8  than 40.1 3.8  than 40.1 3.8  than 40.1 3.8  the 60.1 37.4 9.7  the 38.8  than 40.1 3.8  the 60.1 3.8  than 40.1 3.8  than	Non- commercia; acres		Percent		Monded		Percent
Secondary   All   Non-   Commercial Torest   Nonded norforest   Nond	Land All Non- area 1 forest commerci  ison 365.8 19.7 24.8 1.0  inson 545.4 14.0 0.7  phan 248.0 29.9 1.2  klin 241.2 27.3 1.6  son 420.9 33.5 1.1  son 365.9 43.5 1.1  son 365.9 30.0 1.9  klin 241.2 27.3 1.6  son 342.6 43.5 2.5  hall 377.5 47.9 1.6  hall 377.5 47.9 1.6  hall 377.5 6.9 16.9  nose 510.1 31.8 2.5  ington 575.0 14.8 0.5  oute 529.8 44.4 3.7  non 323.3 11.4 1.4  non 373.5 19.5 2.0  ev 497.2 10.5 0.6  ev 497.2 10.5 0	Non- commercia; acres		Percent	All	Monded	Other nonforest	Percent
Secondary   Seco	ison 275.7 24.8 1.0  inson 365.8 19.7 10.0  404.2 16.0 0.7  hall 248.0 29.9 1.2  son 420.9 33.5 1.1  son 342.6 43.5 2.5  son 342.6 43.5 2.5  son 342.6 43.5 2.5  hall 37.5 47.9 1.6  hall 37.5 47.9 1.6  oute 529.8 44.4 3.5  ington 575.0 14.8 0.5  oute 529.8 44.4 3.5  ington 575.0 14.8 0.5  oute 575.0 14.8 0.5  oute 575.0 14.8 0.5  oute 733.5 11.4 1.4  in 323.3 11.4 1.4  oute 497.2 10.5 0.6  cauqua 377.9 27.0 2.6  ington 67.8 12.5 2.6  oute 497.2 10.5 2.6  oute 497.2 10.5 2.6  oute 497.2 10.5 2.6  oute 497.2 10.5 2.8  ington 72.7 24.1 2.9  oute 412.0 67.8 19.3  oute 380.7 24.2 2.4  oute 416.0 37.4 9.7  oute 416.0 38.4  oute 413.3 29.4 6.5  oute 413.3 29.8 6.5  oute 413.3 29.8 32.8  oute 52.8  oute 613.8  oute 61	acres		COMMERCIAL	111211111111111111111111111111111111111	THE PARTY OF THE		nonforest
counties         Signature         Fercent         Thousand acres	on 275.7 24.8 19.7 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	acres	ommercial	forest	١ .	strips	tree	with trees
con         255.7         24.8         1.0         23.8         8.6         8.3         1.8           son         406.2         1.60         0.7         11.2         28.1         5.0         0.9           son         406.2         1.60         0.7         11.2         28.1         1.7         9.5         1.2           st         406.2         1.60         0.7         11.2         28.1         1.6         0.9           st         420.9         20.9         1.1         28.1         1.6         1.2         0.9           st         420.9         30.5         27.1         1.6         28.7         7.7         20.5         1.5           worth         420.9         37.5         1.1         26.0         1.2         20.5         1.5           ston         305.9         27.4         1.4         20.5         1.5         1.5         1.5           worth         260.6         27.7         31.6         3.6         3.5         3.0         3.0           ston         305.9         27.4         1.4         27.7         20.2         3.0         3.0           ston         305.0         27.4	son 275.7 24.8 19.7 140.0 1404.2 16.0 19.7 140.0 19.7 140.0 19.7 140.0 19.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7	-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Percent	The	1	.es	Percent
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son 404.2 16.0 0.7 15.3 3.8 5.0 0.9  an 248.0 29.9 1.2 28.7 11.6 12.9 1.2  an 369.4 27.3 1.6 1.2 28.7 11.6 12.9 1.2  an 305.9 33.1 1.6 1.6 1.7 7.7 24.5 1.5  an 305.9 27.3 1.1 2.5 18.6 7.7 24.5 1.5  an 305.9 27.3 1.1 2.5 18.6 1.2 2.3 2.3 2.3 1.6  antomic 561.7 31.5 1.8 25.5 1.2 3.3 3.4 4.0  antomic 579.6 34.4 3.2 2.8 32.2 8.5 20.4 3.3 1.8  antomic 579.6 34.4 3.2 2.8 32.2 8.5 20.4 3.3 1.8  antomic 579.6 35.0 2.8 32.2 8.5 20.4 3.3 1.8  antomic 579.7 34.4 3.2 29.3 5.7 1.3 1.8 0.9  antomic 579.6 34.4 3.2 3.5 3.5 1.3 1.3 1.8 0.9  antomic 579.6 34.4 3.2 3.5 3.9 3.1 1.8 0.9  antomic 579.7 31.4 1.4 1.4 1.0 3.1 1.8 0.5  antomic 579.8 19.5 2.8 3.9 2.0 14.4 5.1 1.8 0.5  antomic 579.8 19.5 3.9 1.6 1.8 20.3 3.0  antomic 579.8 19.5 2.8 3.9 2.0 14.4 5.1 1.8 0.5  antomic 579.8 19.7 24.1 2.9 21.2 2.3 34.0 6.0  antomic 579.8 19.3 3.9 2.1 1.8 2.1 1.8 2.1 1.8 2.1  antomic 579.8 19.5 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8	son 545.4 16.0  lan 248.0 29.9  lan 369.4 27.3  in 369.4 27.3  in 420.9 30.0  lan 420.9 30.0  latomie 545.0 43.5  latomie 529.8 44.4  latomie 529.8 11.4  latomie 529.8 11.4  latomie 529.8 11.4  latomie 529.9 10.5  latomie 529.8 11.4  latomie 529.9 10.5  latomie 529.8 11.4  latomie 529.9 10.5  latomie 529.9 10.5  latomie 67.8 19.5  latomie 416.0 37.9 24.2  latomie 416.0 37.4  latomie 416.0 37.9  latomie 413.3 29.4  latomie 413.3 29.4  latomie 6443.3  latomie 545.4 10.5  latomie 67.8 19.5  latomie 67.8 19.5  latomie 644.2 29.0  latomie 644.2 29.0  latomie 644.3 32.8  latomie 644.3 32.8	1.0	18.7	5.1	9.5	1.3	8.2	5.6
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worth 420.9 33.1 2.5 11.5 18.6 7.7 9.5 1.5 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0	m 420.9 33.5 son 342.6 43.5 morth 296.0 45.8 lll 377.5 47.9 t 444.7 31.5 t 459.9 16.9 t 459.9 16.9 t 459.9 16.9 te 529.8 44.4 379.6 35.0 te 351.2 26.9 tee 351.2 26.9 tee 510.1 31.8 ton 373.5 19.5 ton 373.5 19.5 ton 373.5 10.5 ton 373.6 12.5 ton 408.4 43.4 tood 726.2 29.0 te 384.5 56.6 540.5 12.4 604.2 9.3 mery 443.3 29.4 368.7 17.1	1.6	25.7	7.0	14.6	2.5	12.1	4.0
non         342.9         33.5         1.1         32.4         7.7         24.2         6.4           scon         36.5         27.4         1.4         2.6         32.6         3.2         3.0           morth         206.0         45.8         1.4         22.6         3.2         5.3         6.4         5.0           morth         206.0         45.8         1.6         46.3         12.3         20.1         5.1         20.1         20.1         20.2         5.2         6.9         5.2         6.9         1.3         20.1         6.1         3.2         6.1         3.2         6.2         5.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2         6.2 <td>son 420.9 33.5 son 342.6 43.5 worth 296.0 45.8 [1] 561.7 31.5 561.7 31.5 44.9 444.7 44.9 444.7 34.4 444.7 34.4 529.8 44.4 529.8 44.4 379.6 35.0 14.8 529.8 44.4 379.6 35.0 14.8 529.8 44.4 37.9 56.9 500 45.8 11.4 500 373.3 11.4 500 472.0 67.8 10.5 ce 333.6 12.5 721.7 28.1 500 417.8 20.2 50.0 604.2 99.3 506.6 540.5 12.4 604.2 99.3 508.7 17.1 604.2 99.3 508.7 17.1 368.7 17.1</td> <td>2.5</td> <td>18.6</td> <td>7.7</td> <td>9.5</td> <td>1.5</td> <td>8.0</td> <td>3.9</td>	son 420.9 33.5 son 342.6 43.5 worth 296.0 45.8 [1] 561.7 31.5 561.7 31.5 44.9 444.7 44.9 444.7 34.4 444.7 34.4 529.8 44.4 529.8 44.4 379.6 35.0 14.8 529.8 44.4 379.6 35.0 14.8 529.8 44.4 37.9 56.9 500 45.8 11.4 500 373.3 11.4 500 472.0 67.8 10.5 ce 333.6 12.5 721.7 28.1 500 417.8 20.2 50.0 604.2 99.3 506.6 540.5 12.4 604.2 99.3 508.7 17.1 604.2 99.3 508.7 17.1 368.7 17.1	2.5	18.6	7.7	9.5	1.5	8.0	3.9
sepen 342-6 43.5 2.5 41.0 12.0 22.6 3.0  worth 296.0 45.8 2.4 1.8 2.5 41.0 12.0 22.6 3.0  worth 296.1 45.8 2.5 1.8 2.7 5.3 30.4 4.0  377.5 47.9 1.6 46.3 12.3 12.3 23.0 5.2  444.7 34.4 3.2 16.3 16.3 16.3 17.0 5.1 18.4  445.9 16.9 0.6 16.3 7.7 21.1 3.4  444.7 34.4 3.5 2.8 2.8 2.8 2.8 2.0 1.1  see 351.2 26.9 1.3 2.6 2.8 2.6 7.3 14.8 2.2  see 351.2 26.9 1.4 8 0.5 14.3 2.7 11.8 2.0  son 408.4 44.3 1.4 1.4 1.4 1.4 1.0  923.7 24.1 2.9 2.1 2.9 2.0 2.1 34.0 62.6  son 408.4 41.4 1.4 1.4 1.4 1.6 67.8 11.8 2.0  vood 726.2 29.0 3.8 2.6 2.9 3.5 3.5 11.8 2.9  vood 726.2 29.0 3.8 2.6 2.9 3.5 11.8 2.1 11.8 2.0  vood 726.2 29.0 3.8 2.6 2.9 3.5 11.8 2.1 11.8 2.1 11.5 2.0  vood 726.2 29.0 3.8 2.6 2.9 3.5 2.0 11.8 2.1 11.8 2.1 11.6 2.0  vood 726.2 29.0 3.8 2.6 2.7 11.8 2.9 3.0 2.0  vood 726.2 29.0 3.8 2.6 2.7 11.8 2.9 3.0  vood 726.2 29.0 3.8 2.6 2.9 3.5 3.5 11.8 2.1 11.8 2.0  vood 726.2 29.0 3.8 2.6 2.0 2.0 2.0 2.0 2.0 2.0  vood 726.2 29.0 3.8 2.6 2.7 11.8 2.9 3.0  vood 726.2 29.0 3.8 2.8 2.2 3.5 11.4 2.9 4.8 2.1 11.8 2.0 3.0  vood 726.2 29.0 3.8 2.8 2.0 2.0 2.0 2.0 2.0 2.0 3.8 3.8 3.5 3.0 3.0 3.8 3.8 3.5 3.0 3.0 3.8 3.8 3.5 3.0 3.0 3.8 3.8 3.5 3.0 3.0 3.0 3.8 3.0 3.0 3.0 3.0 3.8 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	son 342.6 43.5  wworth 296.0 45.8  111 561.7 31.5  111 561.7 31.5  11.5 377.5 47.9  444.7 44.4  459.9 16.9  444.4  444.7 34.4  44.4  529.8 44.4  44.4  373.6 35.0  26.9  377.6 62.9  373.6 14.8  520.0  40.8 4 43.4  520.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0  620.0	1.1	32.4	7.7	24.2	6.4	17.8	5.7
when the 296.9 45.8 2.74 1.4 26.0 8.5 13.7 2.1  11	worth 296.0 27.4  worth 296.0 45.8  all 377.5 47.9  a 459.9 16.9  44.4  vatomie 529.8 44.4  379.6 35.0  ssee 510.1 31.8  529.8 44.4  379.6 35.0  26.9 35.0  575.0 14.8  500 373.5 19.5  500 373.5 19.5  auqua 412.0 67.8  auqua 412.0 67.8  ce 337.9 27.0  ce 337.9 27.0  ce 338.6 12.5  ce 384.5 56.6  540.5 12.4  604.2 9.3  mery 443.3 29.4  368.0 32.8	2.5	41.0	12.0	22.6	3.0	19.6	9.9
worth 526.0 45.8 2.5 44.3 14.6 5.3 23.2 5.9  111 556.0 46.8 1.8 29.3 14.6 5.2 5.9  112 46.3 12.3 30.4 4.0  113 77.5 47.9 1.6 46.3 12.3 30.4 4.0  114.4 3.2 31.6 16.3 3.5 7.3 11.8  115.7 31.8 3.2 30.4 4.0  118.8 0.5 1.8 3.2 20.4 3.7  118.8 0.5 1.8 20.4 3.7  118.8 0.5 1.8 20.4 3.7  119.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1	worth 296.0 45.8  11	1.4	26.0	8.5	13.7	2.1	11.6	4.5
atomie 559.7 31.5 1.8 29.7 5.3 30.4 4.0 4.0 46.3 12.3 23.0 5.2 23.0 5.2 23.0 4.4 5.2 23.0 16.9 0.6 16.3 12.3 23.0 23.0 5.2 23.0 5.2 23.0 5.2 23.0 5.0 2.8 44.7 3.2 23.0 20.1 2.1 3.4 44.7 3.2 20.1 20.1 20.1 3.4 3.2 20.1 20.1 20.1 3.4 3.2 20.1 20.1 20.1 3.4 3.2 20.1 20.1 20.1 20.1 3.7 20.1 20.1 20.1 3.7 20.1 20.1 20.1 31.8 2.5 20.3 5.7 20.1 20.1 31.8 2.5 20.3 5.7 20.1 20.1 31.8 2.5 20.3 5.7 20.1 3.7 20.1 31.8 2.5 20.3 2.5 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	all 561.7 31.5  44.9  459.9 16.9  44.4  47.9  44.4  44.4  37.5  44.4  37.5  44.4  37.5  44.4  37.5  44.4  37.5  44.4  37.6  37.9  56.9  57.0  14.8  57.0  14.8  57.0  14.8  57.0  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10.6  10	2.5	43.3	14.6	23.2	5.9	17.3	7.8
## 457.5 47.9 1.6 46.3 12.3 23.0 5.2  ## 459.9 16.9 0.6 116.3 12.3 23.0 5.2  ## 444.7 34.4 3.5 16.3 16.3 1.3 1.8  ## 444.7 34.4 3.5 16.3 1.3 1.8  ## 444.7 34.4 3.5 16.3 1.3 1.8  ## 444.7 34.4 3.5 16.3 1.3 1.8  ## 444.7 34.4 3.5 16.3 1.3 1.8  ## 444.7 34.4 3.5 16.3 1.3 1.8  ## 444.7 34.4 3.5 1.3 1.3 1.8  ## 444.7 34.4 3.5 1.3 1.8  ## 444.7 34.4 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.5 1.3 1.8  ## 444.7 3.7 1.3 1.3  ## 444.7 3.5 1.4  ## 10.0 6.6 7.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 6.5 2.9  ## 44.3 1.3 1.3  ## 6.5 2.9  ## 6.6 7.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0.9  ## 44.6 0	atomie 459.9 16.9 444.7 34.4 vatomie 529.8 44.4 379.6 35.0 ee 351.2 26.9 ssee 510.1 31.8 stree 575.0 14.8 son 373.5 19.5 auqua 4412.0 67.8 10.5 vod 721.7 28.1 vood 726.2 29.0 te 384.5 56.6 540.5 12.4 604.2 9.3 mery 443.3 7.8	1.8	29.7	5.3	30.4	4.0	26.4	5.4
tromie 529, 16.9 0.6 16.3 3.5 7.0 21.1 3.4 444.7 344 3.5 10.8 10.2 7.0 20.4 3.4 4.4 3.5 10.2 7.0 20.4 3.4 4.4 3.5 40.9 7.7 20.4 3.4 3.5 40.9 7.7 20.4 3.4 3.5 10.1 3.2 20.1 2.2 20.1 3.2 20.1 2.2 20.1 2.2 20.1 2.2 20.1 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.2 20.1 1.8 2.3 2.1 1.8 2.3 2.1 1.4 1.0 1.0 1.0 1.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	tomie 559.9 16.9 444.7 34.4 444.7 34.4 444.7 34.4 444.7 34.4 379.6 35.0 351.2 26.9 351.2 26.9 35.4 14.8 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.9 526.	1.6	46.3	12.3	23.0	5.2	17.8	6.1
tromie 599.8 44.4 3.2 31.2 7.0 20.1 3.4 4.7 37.9 20.1 3.4 4.9 3.5 40.9 7.7 20.1 3.4 3.7 37.9 20.1 3.4 3.5 40.9 7.7 20.1 20.4 3.7 20.1 2.2 20.1 2.2 20.1 3.4 2.2 20.1 3.4 2.2 20.1 3.4 2.2 20.1 3.8 2.5 20.1 2.2 20.1 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 20.1 3.8 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2	tomie 529.8 44.4  34.4  379.6 35.0  379.6 35.0  379.6 35.0  36.9  56.9  575.0 14.8  575.0 14.8  575.0 14.8  575.0 14.8  573.3 11.4  573.5 19.5  573.5 10.5  58.33.7 9 27.0  58.37.9 27.0  58.37.9 27.0  58.38.7 24.2  721.7 28.1  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.2 29.0  726.3 384.5 56.6  726.3 384.5 56.6  727.3 384.5 36.6  728.3 384.5 36.6  728.3 384.5 36.6  728.3 384.5 36.6  728.3 388.7 17.1  788.8 368.0 32.8	9.0	16.3	3.5	7.3	1.8	5.5	1.6
tromie 529.8 44.4 3.5 40.9 7.7 20.4 3.7 3.7 3.2 5.6 5.9 5.7 5.0 5.0 5.0 5.7 5.0 5.0 5.0 5.0 5.7 5.0 5.0 5.0 5.0 5.7 5.0 5.0 5.0 5.0 5.7 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	tromie 529.8 44.4  379.6 35.0  351.2 26.9  351.2 26.9  351.2 26.9  31.8  31.8  31.8  31.8  31.8  32.3  31.8  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  32.3  43.4  43.3  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.7  56.6  56.7  56.6  56.6  56.7  56.6  56.7  56.6  56.6  56.7  56.6  56.6  56.7  56.6  56.7  56.6  56.6  56.6  56.6  56.7  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.6  56.7  56.6  56.7  56.6  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7  56.7	3.2	31.2	7.0	21.1	3.4	17.7	4.7
see 510.1 2.8 35.0 2.8 5.5 6.0 1.3 25.6 5.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	379.6 35.0 351.2 26.9 510.1 31.8 510.1 31.8 31.8 25.4 7.6 510.1 34.8 323.3 11.4 373.5 19.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.	3.5	40.9	7.7	20.4	3.7	16.7	3.9
## 351.2 26.9 1.3 25.6 7.3 14.8 2.2 2.2 tour field by the	see 510.1 31.8 31.8 31.9 31.0 4.8 31.0 4.8 31.8 31.8 31.8 31.8 31.8 32.4 7.6 323.3 11.4 373.5 19.5 31.0 5.0 4.0 497.2 10.5 41.0 67.8 11.4 43.4 43.4 43.4 43.4 43.4 43.4 43.4	2.8	32.2		20.1	2.2	17.9	5.3
tree 510.1 31.8 2.5 29.3 5.7 15.7 3.2 tree 550.1 31.8 0.5 14.3 0.5 14.3 2.5 18.4 5.4 14.8 0.5 14.8 0.5 18.4 5.4 18.4 0.4 17.6 0.4 14.3 7.0 344.0 62.6 2 18.9 0.5 18.9 0.5 18.9 0.5 18.9 0.5 18.9 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1 18.9 2.1	see 510.1 31.8  yten 575.0 14.8  yte 95.4 7.6  counties 8,394.9 624.2 3  323.3 11.4  373.5 19.5  n 408.4 43.4  43.8  10.5  11.4  43.8  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.	1.3	25.6	7.3	14.8	2.2	12.6	4.2
the 575.0 14.8 0.5 14.3 2.5 18.4 5.4 the 5.4 the 56.4 the 65.4 the	tte 95.0 14.8  tte 95.4 7.6  counties 8,394.9 624.2 3  323.3 11.4  373.5 19.5  and 407.2 10.5  and 412.0 67.8 1  497.2 10.5  and 412.0 67.8  and 412.1 24.0  and 413.3 29.4  and 413.3 29.4  and 413.3 29.4  and 413.3 29.4  and 32.8		29.3	5.7	15.7	3.2	12.5	3.1
tite 95.4 7.6 0.4 7.2 7.5 1.8 0.5 1. countries 8,394.9 624.2 36.1 588.1 7.0 344.0 62.6 281. countries 8,394.9 624.2 36.1 588.1 7.0 344.0 62.6 281. countries 8,394.9 624.2 36.1 588.1 7.0 344.0 62.6 281. countries 95.4 624.2 36.1 3.0 3.1 17.3 2.2 15. 15. 40.8 4.2 10.6 3.1 17.3 2.2 15. 15. 40.8 4.2 10.6 3.8 15. 10.8 20.3 36.4 65.5 20.3 37.9 22.0 22.0 22.0 22.0 14.4 2.1 12. 22.3 377.9 22.0 22.0 22.0 22.0 14.4 2.1 12. 22.0 22.0 22.0 14.4 2.1 12. 22.0 22.0 22.0 22.0 14.4 2.1 12. 22.0 22.0 22.0 22.0 22.0 22.0 2	tte 95.4 7.6  counties 8,394.9 624.2 3  323.3 11.4  373.5 19.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.5  10.6  10.6  10.7  10.7  10.7  10.7  10.7  10.7  10.7  10.7  10.7  10.7  10.7  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10.8  10	0.5	14.3	2.5	18.4	5.4	13.0	
SOUTHEASTERN UNIT  323.3  11.4  11.4  11.4  11.0  373.5  11.4  11.4  11.0  33.1  17.3  2.2  15.0  408.4  43.4  43.4  43.4  10.0  3.1  17.3  2.2  15.0  40.0  3.1  17.3  2.2  15.0  40.0  9.9  2.0  14.4  2.9  12.0  2.0  2.0  2.0  14.4  2.9  12.0  2.0  2.0  2.0  2.0  2.0  2.0  2.	counties 8,394.9 624.2  233.3 11.4  200 373.5 19.5  408.4 43.3 11.4  407.2 10.5  407.2 10.5  407.2 10.5  412.0 67.8 1  24.1  40.7 24.1  380.7 24.2  416.0 37.4  416.0 37.4  56.6  540.5 12.4  604.2 9.3  17.8  17.8  17.8  17.8  368.7 17.1  368.7 17.1	0.4	7.2	7.5	1.8	0.5	1.3	1.9
SOUTHEASTERN UNIT   SOUTHEASTERN UNIT   SOUTHEASTERN UNIT   11.4   11.4   11.4   11.0   3.1   17.3   2.2     13.5   11.4   1.4   10.0   3.1   17.3   2.2     14.6   43.4   43.4   2.9   21.2   2.3   36.4   6.5     497.2   10.5   0.6   9.9   2.0   14.4   2.1     497.2   10.5   0.6   9.9   2.0   14.4   2.1     497.2   10.5   0.6   9.9   2.0   14.4   2.1     497.2   24.2   2.5   2.0   5.8   2.7.1   2.8     397.9   27.0   2.5   10.8   2.5   13.8   0.9     721.7   28.1   2.8   22.0   2.5   13.8   0.9     417.8   20.2   29.0   3.8   25.2   2.5   16.7   16.7     417.8   20.2   29.0   3.8   25.2   2.1   11.5   2.4     443.3   2.9   6.5   2.9   5.5   19.7   2.2     443.3   2.9   4.5   5.6   6.9   1.6   6.8   1.4     368.0   32.8   7.6   22.9   5.5   19.7   2.2     313.8   13.8   13.8   3.7   16.2   1.1     313.8   13.8   3.2   13.8   3.7   16.2   1.1     313.8   313.8   32.8   4.5   6.9   1.6   6.8   1.4     313.8   32.8   2.5   2.5   2.5   19.7   2.2     313.8   313.8   3.2   3.5   3.5   3.5   3.5     313.8   313.8   3.2   3.5   3.5   3.5     313.8   313.8   3.5   3.5   3.5   3.5   3.5     313.8   313.8   3.5   3.5   3.5   3.5     313.8   313.8   3.5   3.5   3.5   3.5     313.8   313.8   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     313.8   3.5   3.5     3	323.3 11.4 373.5 19.5 19.5 408.4 43.4 408.4 43.4 43.7 24.1 497.2 10.5 412.0 67.8 10.5 412.0 67.8 12.5 721.7 24.2 416.0 37.4 416.0 37.4 416.0 37.4 417.8 20.2 384.5 56.6 540.5 12.4 604.2 9.3 413.3 29.4 443.3 7.8 368.7 17.1 368.0 32.8	36.1	588.1	7.0	344.0	62.6		4.1
323.3 11.4 1.4 1.6 3.1 17.3 2.2  373.5 19.5 3.9 3.5 15.6 4.2 18.9 2.1  408.4 43.4 8.3 35.1 8.6 4.2 18.9 2.1  497.2 10.5 0.6 9.9 2.0 14.4 2.1  497.2 10.5 0.6 9.9 2.0 14.4 2.1  412.0 67.8 19.3 48.5 11.8 29.3 3.0  412.0 67.8 19.3 43.7 22.0 5.8 27.1 2.8  397.9 27.0 5.0 5.0 22.0 14.4 2.1  416.0 37.4 9.7 27.7 6.7 14.4 2.9  416.0 37.4 9.7 27.7 6.7 16.7 15.7  540.5 12.4 12.7 22.1 11.5 2.4  417.8 20.2 4.2 16.0 3.8 18.2  540.5 12.4 12.7 22.1 11.5 2.4  604.2 29.3 1.9 7.4 12.7 24.9 3.2  604.2 29.4 6.5 22.9 5.5 19.7 2.2  443.3 7.8 6.5 6.6 0.8 11.4  443.3 7.8 6.5 6.6 6.9 1.6 6.8 11.6  388.7 17.1 3.3 13.8 3.7 16.2 15.0  6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 40.8 2.3  4.7 6.8 6.8 40.8 5.3  4.7 6.8 40.8 5.3  4.7 6.8 6.8 6.8 5.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 5.3  4.7 6.8 6.8 6.8  4.7 6.8 6.8 6.8 6.8  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.8 6.8 6.8 6.3  4.7 6.7 6.7 6.7  4.7 6.7 6.7 6.7  4.7 6.7 6.7  4.8 6.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8  4.8 6.8 6.8	323.3 11.4 373.5 19.5 1 408.4 43.4 408.4 43.4 408.4 43.4 43.7.9 24.1 497.2 10.5 67.8 1 67.8 1 721.7 24.2 721.7 221.2 721.7 22	S	DUTHEASTERN					
on         373.5         19.5         3.9         15.6         4.2         18.9         2.1           of 08.4         43.4         8.3         35.1         8.6         48.1         2.0           408.4         43.4         8.3         35.1         8.6         48.1         2.0           408.4         40.2         22.9         22.0         11.8         2.1         2.0           497.2         10.5         0.6         9.9         2.0         14.4         2.1           ee         377.9         27.0         5.0         22.0         14.4         2.1           393.6         12.5         2.5         10.0         2.5         13.8         27.1         2.8           721.7         28.1         28.2         25.3         3.5         14.4         2.1           add         38.0         2.2         2.0         2.2         3.2         3.2           dod         72.7         27.7         6.7         16.7         15.7         2.2           see         38.4.5         5.6         2.4         21.8         27.2         27.2         27.2           add         7.2         27.7         48.7	and 373.5 19.5  408.4 43.4  43.4  4923.7 24.1  497.2 10.5  497.2 10.5  77.9 27.0  27.0 27.0  27.1 24.2  416.0 37.4  417.8 20.2  417.8 20.2  417.8 20.2  413.3 29.4  443.3 7.8  368.7 17.1  368.7 17.1	1.4	10.0	3.1	17.3	2.2	15.1	5.4
408.4 43.4 8.3 35.1 8.6 48.1 2.0 923.7 24.1 2.9 21.2 2.3 36.4 6.5 497.2 10.5 0.6 9.9 2.0 14.4 2.1 40.8 412.0 67.8 19.3 48.5 11.8 29.3 3.0 377.9 27.0 5.0 22.0 5.8 27.1 2.8 393.6 12.5 2.5 10.0 2.5 13.8 0.9 721.7 28.1 2.8 25.3 3.5 14.4 2.9 417.8 20.2 29.0 3.8 25.2 3.5 16.7 11.5 540.5 12.4 1.2 11.2 2.1 11.5 2.4 604.2 9.3 1.9 7.4 1.2 2.1 11.5 2.4 443.3 29.4 6.5 22.9 5.5 19.7 24.9 3.2 443.3 29.4 6.5 22.9 5.5 6.8 40.8 2.3 313.8 15.8 3.2 12.6 4.0 15.2 1.3 388.7 17.1 3.3 13.8 3.7 16.2 2.3 313.8 15.8 3.2 12.6 4.0 15.2 1.5 500ntties 9.813.3 536.3 99.3 437.0 4.5 458.0 50.3 4	408.4 43.4 43.4 497.2 10.5 24.1 497.2 10.5 24.1 497.2 10.5 67.8 10.5 67.8 12.0 67.8 12.5 721.7 24.2 721.7 24.2 416.0 37.4 20.4 417.8 20.2 29.0 443.3 29.4 443.3 368.0 32.8	3.9	15.6	4.2	18.9	2.1	16.8	5.1
923.7 24.1 2.9 21.2 2.3 36.4 6.5 497.2 10.5 10.6 9.9 2.0 14.4 2.1 497.2 10.5 67.8 19.3 48.5 11.8 29.3 3.0 14.4 2.1 2.8 33.6 12.5 2.5 10.0 2.5 13.8 0.9 3.0 721.7 28.1 2.8 25.3 3.5 14.4 2.9 3.0 721.7 28.1 2.8 25.3 3.5 14.4 2.9 3.3 41.6 0.3 3.4 2.1 8 5.7 27.2 3.3 3.4 5 5.1 16.0 37.4 9.7 27.7 6.7 16.7 16.7 1.5 16.0 384.5 56.6 7.9 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 48.3 11.8 3.3 113.8 3.3 113.8 3.3 113.8 3.3 113.8 3.3 113.8 3.3 113.8 15.8 3.2 12.6 4.0 15.2 1.5 2.0 50.3 4 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.3 4.5 56.2 56.3 56.3 56.3 56.3 56.3 56.3 56.3 56.3	923.7 24.1 497.2 10.5 497.2 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	8.3	35.1	8.6	48.1	2.0	46.1	11.8
qual         497.2         10.5         0.6         9.9         2.0         14.4         2.1           ee         477.9         27.0         67.8         19.3         48.5         11.8         29.3         3.0           ee         377.9         27.0         5.0         22.0         5.8         27.1         2.8           393.6         12.5         2.6         10.0         2.5         13.8         27.1         2.8           721.7         24.2         2.8         25.3         3.5         14.4         2.9           d         726.2         29.0         3.8         27.7         6.7         14.4         2.9           ood         726.2         29.0         3.8         27.7         6.7         14.4         2.9           s         417.8         20.2         4.2         16.0         3.8         16.7         1.5         1.5           s         417.8         20.2         4.2         16.0         3.8         16.0         3.4         1.5         2.4         1.5         2.4         2.4         2.4         2.4         2.4         2.4         2.4         2.4         2.1         2.2         3.4         2.2	497.2 10.5  qua 497.2 10.5  e 377.9 67.8 1  377.9 27.0  721.7 28.1  721.7 24.2  416.0 37.4  726.2 29.0  417.8 20.2  540.5 12.4  604.2 9.3  nery 413.3 29.4  443.3 7.8  368.7 17.1  368.0 32.8	2.9	21.2	2.3	36.4	6.5	29.9	3.9
Judua 412.0 67.8 19.3 48.5 11.8 29.3 3.0 22.0 5.8 27.1 2.8 377.9 27.0 5.0 22.0 5.8 27.1 2.8 27.1 2.8 27.1 2.8 27.1 2.8 27.1 2.8 25.3 3.5 14.4 2.9 3.3 2.0 2.0 2.5 13.8 0.9 27.1 2.8 2.9 2.9 2.0 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	adua 412.0 67.8 1 387.9 27.0 393.6 12.5 721.7 28.1 726.2 29.0 726.2 29.0 417.8 20.2 384.5 56.6 540.5 12.4 604.2 9.3 nery 413.3 29.4 443.3 7.8 368.0 32.8	9.0	6.6	2.0	14.4	2.1	12.3	2.9
e 377.9 27.0 5.0 22.0 5.8 27.1 2.8 33.5 12.5 12.5 10.0 2.5 13.8 0.9 33.6 12.5 2.8 25.3 3.5 14.4 2.9 3.3 14.6 0.9 2.9 14.6 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	e 377.9 27.0 393.6 12.5 721.7 28.1 721.7 28.1 00d 726.2 29.0 417.8 20.2 384.5 56.6 540.5 12.4 604.2 9.3 nery 413.3 29.4 368.0 32.8	19.3	48.5	11.8	29.3	3.0	26.3	7.1
393.6 12.5 2.5 10.0 2.5 13.8 0.9 2.5 321.7 28.1 2.8 25.3 3.5 14.4 2.9 25.3 3.5 14.4 2.9 25.3 3.5 14.4 2.9 25.2 3.5 14.4 2.9 3.3 3.4 9.7 27.7 6.7 16.7 1.5 1.5 27.2 3.3 3.3 3.4 27.2 2.0 3.8 25.2 3.5 34.5 5.1 1.5 27.2 3.8 25.2 3.5 34.5 5.1 1.5 24.9 3.2 24.2 11.2 2.1 11.5 2.4 48.7 12.7 24.9 3.2 443.3 2.9 4 6.5 22.9 5.5 19.7 2.2 443.3 2.9 4 6.5 22.9 5.5 19.7 2.2 443.3 2.8 7.6 25.2 6.8 40.8 2.3 3.8 3.2 12.6 4.0 15.2 1.5 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3	393.6 12.5 721.7 28.1 380.7 24.2 416.0 37.4 726.2 29.0 417.8 20.2 384.5 56.6 540.5 12.4 604.2 9.3 ery 413.3 29.4 443.3 7.8 368.0 32.8	5.0	22.0	5.8	27.1	2.8	24.3	7.2
y 721.7 28.1 2.8 25.3 3.5 14.4 2.9 ford 380.7 24.2 2.4 21.8 5.7 27.2 3.3 ford 380.7 24.2 2.4 21.8 5.7 27.2 3.3 ford 380.7 22.0 3.8 25.2 3.5 16.7 1.5 1.5 te 384.5 56.6 7.9 4.2 16.0 3.8 18.2 1.0 3.8 18.2 1.0 5.1 11.5 2.4 6.5 540.5 12.4 1.2 11.2 2.1 11.5 2.4 6.5 6.6 0.8 6.6 0.8 6.8 11.4 6.5 6.5 1.0 6.8 1.4 6.5 6.9 1.6 6.8 1.4 6.5 6.8 1.4 6.5 6.8 1.4 6.5 6.8 1.4 6.5 6.8 1.4 6.8 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.1	sy 721.7 28.1  ford 380.7 24.2  wood 416.0 37.4  te 417.8 20.2  tte 384.5 56.6  540.5 12.4  on 604.2 9.3  gomery 413.3 29.4  1s 368.7 17.1  on 368.0 32.8	2.5	10.0	2.5	13.8	0.9	12.9	3.5
ord         380.7         24.2         2.4         21.8         5.7         27.2         3.3           wood         726.2         29.0         3.8         27.7         6.7         16.7         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.5         1.4         1.5         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         2.4         9.3         9.3         4.5         9.3         4.5         4.5         4.5         4.5         4.5         4.5         9.3         4.5         9.3         4.5         9.3         4.5         9.3         4.5         9.3         4.5         9.3         4.5         9.5         9.3         4.5 <t< td=""><td>ord 380.7 24.2 416.0 37.4 wood 726.2 29.0 te 417.8 20.2 384.5 56.6 540.5 12.4 on 604.2 9.3 gomery 413.3 29.4 15 368.7 17.1</td><td>2.8</td><td>25.3</td><td>3.5</td><td>14.4</td><td>2.9</td><td>11.5</td><td>2.0</td></t<>	ord 380.7 24.2 416.0 37.4 wood 726.2 29.0 te 417.8 20.2 384.5 56.6 540.5 12.4 on 604.2 9.3 gomery 413.3 29.4 15 368.7 17.1	2.8	25.3	3.5	14.4	2.9	11.5	2.0
wood 726.2 29.0 3.4 9.7 27.7 6.7 15.7 15.5 15.5 15.5 15.5 15.5 15.5 15	wood 726.2 29.0 37.4 17.8 20.2 29.0 417.8 20.2 29.0 29.0 29.0 29.0 29.0 29.0 29.0	2.4	21.8	5.7	27.2	m .	23.9	7.1
wood /26.2 29.0 3.8 25.2 3.5 34.5 5.1 tele 417.8 20.2 4.2 16.0 3.8 18.2 1.0 417.8 20.2 4.2 16.0 3.8 18.2 1.0 3.8 48.7 12.7 24.9 3.2 48.7 12.7 24.9 3.2 2.4 540.5 12.4 1.2 11.2 2.1 11.5 2.4 540.5 12.4 13.3 29.4 6.5 22.9 5.5 19.7 2.2 19.7 2.2 19.7 2.2 19.7 2.2 19.7 2.2 19.7 2.2 10.8 1.4 13.8 17.1 3.3 13.8 3.7 16.2 1.1 13.8 3.7 16.2 1.1 15.8 25.2 6.8 40.8 2.3 13.8 15.8 15.8 15.2 15.5 15.5 15.5 15.5 15.5 15.5 15.5	te 417.8 20.2 384.5 26.6 384.5 56.6 540.5 12.4 50 604.2 9.3 gomery 413.3 29.4 15 368.7 17.1 50 368.0 32.8	9.1	7.17	7.9	16./	1.5	15.2	0°4
te 417.8 20.2 4.2 16.0 3.8 18.2 1.0 3.8 38.4 15.6 56.6 7.9 48.7 12.7 24.9 3.2 3.2 340.5 56.6 7.9 48.7 12.7 24.9 3.2 3.2 340.5 12.4 11.2 2.1 11.5 2.4 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2	te 41/.8 20.2 4. 384.5 56.6 7. 540.5 12.4 1. 540.5 12.4 1. 50mery 413.3 29.4 6. 15 443.3 7.8 0. 368.7 17.1 3.	ω° Ω •	25.2	3.5	34.5	5.1	29.4	4.8
384.5     56.6     7.9     48.7     12.7     24.9     3.2       540.5     12.4     1.2     48.7     12.1     11.5     2.4       560.4     9.3     1.9     7.4     1.2     6.6     0.8       90mery     413.3     29.4     6.5     22.9     5.5     19.7     2.2       15     17.1     3.3     13.8     3.7     16.2     1.1       10     368.0     32.8     7.6     25.2     6.8     40.8     2.3       10     313.8     15.8     3.2     12.6     4.0     15.2     1.5       1     15.8     3.2     12.6     4.0     4.5     458.0     50.3     4	384.5 50.6 7.  540.5 12.4 1.  540.5 12.4 1.  9mery 413.3 29.4 6.  15 443.3 7.8 0.  368.7 17.1 3.  on 368.0 32.8 7.	4.2	16.0	က္ရ	18.2	1.0	17.2	4.4
on 604.5 12.4 1.2 11.2 2.1 11.5 2.4  540.5 12.4 1.2 11.2 2.1 11.5 2.4  66.5 22.9 5.5 19.7 2.2  68 1.4  68.7 17.1 3.3 13.8 3.7 16.2 1.1  50.0 32.8 7.6 25.2 6.8 40.8 2.3  50.0 313.8 3.2 12.6 4.0 15.2 1.5  1 counties 9.813.3 536.3 99.3 437.0 4.5 458.0 50.3 4	540.5 12.4 1.  540.5 12.4 1.  500.2 9.3 1.  1.  500.2 29.4 6.  1.  500.2 368.7 17.1 3.  500.3 368.0 32.8 7.	6./	48./	12./	24.9	3.2	21./	6.5
604.2 9.3 1.9 7.4 1.2 6.6 0.8 5.4 1.2 413.3 29.4 6.5 22.9 5.5 19.7 2.2 17.7 2.2 17.8 0.9 6.9 1.6 6.8 1.4 5.8 368.0 32.8 7.6 25.2 6.8 40.8 2.3 38.8 3.2 12.6 4.0 15.2 1.1 15.1 15.1 15.8 3.2 12.6 4.0 15.2 1.5 13.1 15.8 13.3 536.3 99.3 437.0 4.5 458.0 50.3 407	004.2 9.3 1. 413.3 29.4 6. 443.3 7.8 0. 368.7 17.1 3. 368.0 32.8 7.	1.2	11.2	2.1	11.5	2.4	9.1	2.1
413.3 24.4 6.5 22.9 5.5 19.7 2.2 17 443.3 7.8 0.9 6.9 1.6 6.8 1.4 5 368.7 17.1 3.3 13.8 3.7 16.2 1.1 15 368.0 32.8 7.6 25.2 6.8 40.8 2.3 38 313.8 15.8 3.2 12.6 4.0 15.2 1.5 13 ties 9.813.3 536.3 99.3 437.0 4.5 458.0 50.3 407	413.3 29.4 6. 443.3 7.8 0. 368.7 17.1 3. 368.0 32.8 7.		7.4		0.0	æ. •	0	1.1
443.3 7 1.8 0.9 6.9 1.6 6.8 1.4 5 368.7 17.1 3.3 13.8 3.7 16.2 1.1 15 15 368.0 32.8 7.6 25.2 6.8 4.0 15.2 2.3 38 13.8 15.8 15.8 15.8 15.8 15.8 15.8 15.8 15	443.3 7.8 0.368.7 17.1 3.368.0 32.8 7.	6.5	22.9		19./	2.2	_	8.4
368.0 32.8 7.6 25.2 6.8 40.8 2.3 38 38 38 3.7 16.2 1.1 15 15 368.0 32.8 7.6 25.2 6.8 4.0 15.2 1.5 13 38 20 13.3 536.3 99.3 437.0 4.5 458.0 50.3 407	368.0 32.8 7.ºº	0.9	6.9	J.6	8.9	T.4	5.4	1.5
368.0 32.8 7.6 25.2 6.8 40.8 2.3 38 15.8 15.8 15.2 13 38 20 15.2 1.5 13 38 20 15.2 1.5 13 38 38.0 50.3 407	368.0 32.8 7.		13.8	3.7	16.2	1,1	15.1	4.4
ounties 9.813.3 536.3 99.3 437.0 4.5 458.0 50.3 407	210 0 15 0		25.2	φ. φ. α	40.8	2.3	38.5	11.1
9.813.3 536.3 99.3 437.0 4.5 458.0 50.3 407	0.010	3.6	17.0	• !	12		13./	4.0
	9,813.3 536.3	99.3	437.0		458.0	50.3	407.7	4.7

State/county area measurement reports (unpublished).  $\frac{1}{2}$ U.S. Department of Commerce, Bureau of the Census. 1980.

			Forest land		79 8 8 8 95 7 F 6 8 8 8 7 F 7 F 8 8 8 8 8 8 8 8 8 8 8 8 8		Nonforest	land with trees	ees
County	Land <sub>1</sub> /	All forest	Non- commercial	Commercial	Percent commercial forest	All nonforest with trees	Wooded	Other nonforest with trees	Percent nonforest with trees
Campa		Thousand	nd acres	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dercent	July 1	Thousand acres	3	Darcant
Barber	727.2		1	9-9	0.9	•	2.2		2.4
Barton	573.1	1.1	; ;	1.1	0.2	0.5	0.1	0.4	0.1
Cheyenne	653.4	2.7	;	2.7	0.4	6.2	1.7	4.5	0.9
Clark	624.0	5.1	0.4	4.7	0.8	8.3	9.0	7.7	1.3
Cloud	459.3	8.7	0.1	3,00	1.9	່ນ	0.1	5.4	1.2
Comanche	504.8	7.7	0.2	1.0	2.0	χ. c	4.0	5.4	1:1
Decatur	306 5	2.3	1	2.3	4.0	2.1	≈ c	1.3	4.0
Filis	576.3	2.7	1 1	7.6	, C	4.0	0.0	3.7	0.0
Ellsworth	458.9	3.1		3.1	0.7	. O.	0.0	2.4	0.7
Finney	833.3	0.4	ł	0.4	1	0.4	0.1	0.3	; 1
Ford	703.2	6.0	0.2	0.7	0.1	5.7	0.4	5.3	0.8
Gove	686.0	0.1	! 6	0.1	1 0	1.8	1 0	œ,	0.3
Granam	5/5.0	4° C	2.0	/ <del>*</del> 0	0.8	4.7	0.1	<b>6.</b> 4	I.3
Grant	308.I 555.2	0.0	7.0	0.1	1 0	2°9 0°8	0.0	× ×	×.0
Gray	7000	2.0	1 1	2.50 C	•	. ~ . C	1.0	* °	1.0
Hamilton	638.4	3,5	0.2	- C	0.5	n C	0.4	2.6	0.5
Harper	513.3	5.1	0.4	4.7	0.9	17.7	1.4	16.3	4,6
Harvey	345.9	1.9	0.2	1.7	0.5	6.8	0.7	6.1	2.0
Haskell	369.7	-	;	;	;	;	;	;	1
Hodgeman	550.7	i	1	;	;	0.1	1	0.1	;
Jewell	582.2	11.1	1.3	9,8	1.7	12.1	1.5	10.6	2.1
Kearny	555.3	0.7	0.5	0.5	0.1	0.3	! '	0°3	0.1
Kingman	553.9 162.6	8.0	U•1	0.7	L.3	21.0	2 ° -	20.0	ب ا ا
l ane	459.1		. !	0.0	1 - 1	C + 7	7 - 1	C • T	0.0
Lincoln	460.6	, m	0.2	3,1	0.7	8.1	6.0	7.2	1.3
Logan	686.9	1.0	: !	1.0	0.1	0.4	0.1	0,3	0.1
McPherson	576.1	4.0	0.2	3.8	0.7	0.9	0.7	5.3	1.0
Meade	626.3	2.1	0.2	1.9	0.3	1.6	0.1	1.5	0.3
Mitchell	459.1	8.4	1.4		1.5	24.8	1.5	23.3	5.4
Morton	467.9	2.6	0.2		0.5	1.6	04	1.2	0°3
Novton	58/./	9.4	1 0	9°0	1.00	0.1	1 0	1.0 5.0	10
Oshorne	564.4	. ער זירי	0.0		? -	, ,	7.0	7.4	1.1
Ottawa	461.3	7.3	0.6	6.7	1.5	0.6	0.3	8.7	2.0
Pawnee	483.1	2.3	0.4		0.4	8.5	1.6	6.9	1.8
Phillips	567.5	7.4	1.4	0.9	1.1	22.4	1.7	20.7	3.9
Pratt	470.5	1.6	1 8		0.3	0.6	0.1	0.5	0.1
Rawlins	684.4	2.2	0.2	2.0	0.3	1.9	0.4	1.4	0.3
Reno	805.6	7.3	1.0		0.8	23.9	6"0	23.0	3.0
Republic Siri	459.9	\ ° ° +	0.5	8.5	n. 0	10.8	٠ ٠ ٥	ۍ پ	5.3
K1ce 0-1-1-1	465.9	~ · ·	2.0	I.6	0.3	3.4	7.0	X. 2.	\ °.
Rooks	568.7	000	0.5	4.0	Ι•1	16.3	L.4	14.9	6.2
Kush	459.5	0°. I		0. 4	1 0	0.C		J.°	. ~
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		-				7.07	1	(	
							( lab l	e 3 continued	a on next page)

(Table 3 continued)

NESTERN UNIT

			Foract land				Nonforact	Nonforest land with twees	000
			DIESC IGILA				MOTITOR	Talla WILL C	coo
					Percent	A11		Other	Percent
	Land,	A11	Non-		commercial	nonforest	Mooded	nonforest	nonforest
County	area-	forest	commercial	Commercial	forest	with trees	strips	with trees	with trees
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	snoul	ousand acres	***********	Percent	41	ousand ac	Thousand acres	Percent
Saline	451.6	3.4	0.3	3.1	0.7	0.6	0.4	8.6	1.9
Scott	459.2	0.1		0.1	1	* *	1	1	1
Sedgwick	644.7	8.0	1.2	6.8	1.1	19.1	0.7	18.4	3.0
Seward	409.7	2.1	0.1	2.0	0.5	3.1	0.6	2.5	0.8
Sheridan	573.5	1.2	1	1.2	0.2	9.0	0.1	0.5	0.1
Sherman	676.4	1	ş	t	1	1 7	į	1 1	1
Smith	574.0	3.6	-	3.6	9.0	5.7	3.9	1.8	1.0
Stafford	504.0	3.7	0.2	3.5	0.7	10.1	0.4	9.7	2.0
Stanton	435.6	1	*	1 1	1	6.0	1	6.0	0.2
Stevens	455.6	0.6	1	0.6	0.1	0.4	0.1	0.3	0.1
Summer	757.4	15.7	0.5	15.2	2.0	39.6	2.1	37.5	5.2
Thomas	687.7	0.3	1	0.3	1	0.2	!	0.2	;
Trego	569.8	1.8	0.3	1.5	0.3	5.9	0.3	5.6	1.0
Wallace	584.7	0.3	0.2	0.1	-	2.6	0.1	2.5	0.4
Wichita	459.9	1	;	1	e 1	1	t t	;	1
All counties	34,129.8	198.2	15.4	182.8	0.5	387.3	37.1	350.2	1.1
All units	52,338.0	1,358.7	150.8	1,207.9	2.3	1,189.3	150.0	1,039.3	2.3

Table 4.--Area of commercial forest land by ownership class and Forest Survey Unit, Kansas, 1981

Ownership class	All Units	North- eastern Unit	South- eastern Unit	Western Unit
National Forest				
Miscellaneous federal	36.6	26.2	8.3	2.1
Indian	4.0	4.0	1 1	,
State	7.5	1 1	5.0	2.5
County and municipal	2,3	1.2		ł
Farmer	749.5	338.7	284.1	126.7
Miscellaneous private	408.0	218.0	138.5	51.5
All owners	1,207.9	583.1	437.0	182.8

Table 5.--Area of commercial forest land by ownership class and forest type, Kansas, 1981

						Forest type	type				
		Eastern		Post-	Upland				Lowland	Upland	
	ATT	redcedar-	Oak-	blackjack	plains	Elm-ash-			plains	elm-ash-	-ucN
Ownership class	types	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
National Forest	1	1	1				the state of the s				:
Miscellaneous federal	36.6	1.6	6.8	1.2	2.5	8.6	3.0	1	7.1	5.8	!
Indian	4.0	1	1.2	1	;	1.6	;	7	;	1.2	1
State	7.5	1	2.5	1	;	1.1	2.5	!	1	;	1.4
County and municipal	2.3	1	:	;	1.1	1.2	;	:	*	,	
Farmer	749.5	18.7	184.4	22.6	26.8	182.2	35.2	1.0	186.6	63,3	.28.7
Miscellaneous private	408.0	7.2	121.7	7.1	19.0	6.46	27.4	3.2	72.2	40.0	15.3
All owners	1,207.9	27.5	316.6	30.9	49.4	289.6	68.1	4.2	265.9	110.3	45.4

Table 6.--Area of commercial forest land by ownership class and site class, Kansas, 1981

(In thousand acres)

	All	Site class	(cubic fee	et of grow	th/acre/year)
Ownership class	classes	119+	35-119	50-84	119+ 85-119 50-84 20-49
National Forest	1	!	;	7	Ť
Miscellaneous federal	36.6	1	3.7	16.8	16.1
Indian	4.0	1	;	;	4.0
State	7.5	;	2.2	1.3	4.0
County and municipal	2.3	!	2.3	1	;
Farmer	749.5	3.4	89.0	297.7	359.4
Miscellaneous private	408.0	1.2	60.7	171.6	174.5
All owners	1,207.9	4.6	157.9	487.4	558.0

Table 7..--Area of commercial forest land by ownership class and ownership size class, Kansas, 1981

(In thousand acres)

				)	)wnershîp	Ownership size class (acres)	ass (acr	es)		
	All						100-	-009	2,500-	
Ownership class	classes	1-5	5-10	10-20	20-50	1-5 5-10 10-20 20-50 50-100	200	0 500 2,500 5	5,000	5,000+
National Forest	1		;	1	1	!	;	!	1	;
Miscellaneous federal	36.6	1	i	;	!	;	;	;		36.6
Indian	4.0	1	1	1		1 1	ł		1	4.0
State	7.5	;	;	1	1	1	1	1	1	7.5
County and municipal	2.3	1 8	!	;	į	1	1		1	;
Farmer	749.5	12.6	86.8	171.1	299.4	118.0	56.5		ž	;
Miscellaneous private	408.0	18.4	43.0	101.2	101.9	9.97	38.5	19.8	1	8.6
All owners	1,207.9	31.0	132.8	272.3	401.3	194.6	.0.36		;	56.7

## Table 8.--Area of commercial forest land by ownership class, stand-size class, and Forest Survey Unit, Kansas, 1981

(In thousand acres)

Δ1	1.08	

		ALL UNITS			
			Stand	-size class	
	All	Sawtimber	Poletimber	Sapling and	Nonstocked
Ownership class	stands	stands	stands	seedling stands	areas
National Forest					
Miscellaneous federal	36.6	18.1	4.4	14.1	
Indian	4.0	1.2		2.8	
State	7.5	3.6	2.5		1.4
County and municipal	2.3	2.3			
Farmer	749.5	357.0	139.7	224.1	28.7
Miscellaneous private	408.0	182.8	87.8	122.1	15.3
All owners	1,207.9	565.0	234.4	363.1	45.4
		NORTHEASTERN U	TIV		
National Forest	~-				
Miscellaneous federal	26.2	13.4	1.1	11.7	
Indian	4.0	1.2		2.8	
State					
County and municipal	1.2	1.2			~-
Farmer	338.7	146.3	62.0	116.3	14.1
Miscellaneous private	218.0	80.9	49.2	82.7	5.2
All owners	588.1	243.0	112.3	213.5	19.3
		SOUTHEASTERN U	NIT		
National Forest					
Miscellaneous federal	8.3	4.7	1.2	2.4	
Indian		~ ~	~-		
State	5.0	3.6			1.4
County and municipal	1.1	1.1			
Farmer	284.1	127.0	58.9	94.1	4.1
Miscellaneous private	138.5	56.0	36.5	35.9	10.1
All owners	437.0	192.4	96.6	132.4	15.6
		WESTERN UNIT			
National Forest			~ ~		
Miscellaneous federal	2.1		2.1		
Indian					
State	2.5		2.5		
County and municipal					
Farmer	126.7	83.7	18.8	13.7	10.5
Miscellaneous private	51.5	45.9	2.1	3.5	
All owners	182.8	129.6	25.5	17.2	10.5

Table 9.--Area of commercial forest land by ownership class and area-condition class, Kansas, 1981

			Area-cond	ition cla	ss
Ownership class	All classes	70	60	50	40 or better
National Forest					
Miscellaneous federal	36.6	8.9	23.3	4.4	
Indian	4.0	4.0			~ =
State	7.5	1.5	5.0	1.0	
County and municipal	2.3		2.3		
Farmer	749.5	360.9	335.0	53.6	***
Miscellaneous private	408.0	179.2	183.8	45.0	
All owners	1,207.9	554.5	549.4	104.0	

Table 10.--Area of commercial forest land by ownership class and stand-volume class, Kansas, 1981 (In thousand acres)

		Stand-volume cl	Stand-volume class (board feet $^{1}/$ per acre)	oer acre)
	All	Less than	1,500 to	
Whership class	classes	1,500	5,000	5,000+
National Forest		*		,
Miscellaneous federal	36.6	, 15.8	12.4	8.4
Indian	4.0	2.8	1.2	!
State	7.5	4.0	1	3,5
County and municipal	2.3	1	1.2	1,1
Farmer	749.5	401.6	274.5	73.4
Miscellaneous private	408.0	221.4	139.6	47.0
411 owners	1,207.9	645.6	428.9	133.4

 $\frac{1}{2}$  International 1/4-inch rule.

Table 11.--Area of commercial forest land by county and forest type, Kansas, 1981

(In thousand acres)

# NORTHEASTERN UNIT

Control												
State		ATT	Eastern redcedar-	0ak-	Post- ackjac	Upland plains	Elm-ash-			Lowland plains	Upland elm-ash-	Non-
18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7   18.7	ounty	types	hardwood	hickory	oak	ardwood	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
Signal 15.3	Atchison	23.8	9.0	9.1	1	1.1		9.0	0.2	5.6		0.4
15.5   0.1   3.4   0.1   0.8   2.9   0.6   0.2   5.1   1.5   1.5   0.6   0.2   5.1   1.5   0.6   0.2   5.1   1.5   0.6   0.2   0.1   1.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5   0.5	Brown	18.7	0.5	8.2	;	0.8		0.1	0.1	3.4	-	
sison 13.5 0.0 1 3.8 0.6 5.1 0.6 0.2 4.3 1.4 0.5 is a control of the control	Clay	15.3	0.2	3.4	0.1	0.8		0.8	0.2	5.1		0.3
and 28.1 1.0 9.7 11.5 5.1 0.6 0.4 6.0 3.7 0.0 1 1.8 1.8 1.0 1.0 1.1 1.2 0.1 1.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 1.2 0.2 0.1 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Dickinson	13.5	0.1	3,3	1	0.6	2.3	9.0	0.2	4.3		0.2
18. 28.1 0.8 10.7 0.2 11.4 4.5 0.1 4.4 5.3 0.1 1.4 1.2 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.0 1.3 1.3 1.0 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	Doniphan	28.7	1.0	6.7	1	1.5	5.1	9.0	0.4	6.0	3.7	0.7
The Section of the Se	Douglas	28.1	0.8	10.7	0.2	1.4	4.5	0.1	1	4.4	5.3	0.7
18.6 0.6 5.4 1.0 3.1 0.8 0.8 0.3 6.5 5.7 5.8 0.9 0.3 6.5 5.8 5.9 0.9 0.2 5.5 5.4 0.0 0.3 6.5 5.4 0.2 5.8 0.9 0.2 5.8 0.9 0.2 5.9 0.9 0.2 5.9 0.9 0.2 5.9 0.9 0.2 5.9 0.9 0.2 5.9 0.9 0.2 5.9 0.9 0.9 0.2 5.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0	Franklin	25.7	0.7	° 0	0.1	1.3	4.7	0.3	0.1	4.7	4.3	0.9
11. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Geary	18.6	9.0	5.4	1	1.0	3.1	0.8	0.1	4.6	2.5	0.5
Seen 41.0 0.7 15.0 0.2 2.1 6.6 0.9 0.2 7.5 6.6 11  Worth 23.7 1.2 2.2 2.1 6.6 0.9 0.2 4.5 6.6 11  11	Jackson	32.4	0.7	6.5	1	1.1	9.1	0.7	0.3		5,4	2.4
worth 25.0 0.9 8.5 1.1 4.7 0.4 0.2 6.4 5.4 5.4 11 4.7 2.4 4.7 0.4 4.5 5.4 5.4 5.4 5.4 5.4 5.4 5.4 5.4 5	Jefferson	41.0	0.7	15.0	0.2	2.1	9.9	0.9	-		9.9	
worth 43.3 13.5 0.1 2.2 7.2 2.4 0.1 9.4 5.6 21 11.1 11.1 11.1 11.1 11.1 11.1 11.1	Johnson	26.0	6"0	8.5	1	1.1	4.7	0.4	0.2		3.4	
atomie 46.3 1.5 7.2 0.1 1.2 6.3 0.6 0.6 6.9 4.7 11  15.3 0.4 3.3 0.5 0.6 6.9 4.7 11  15.3 0.4 3.3 0.5 0.6 6.9 4.7 11  15.3 0.4 3.3 0.5 0.6 6.9 4.7 11  15.4 0.2 0.1 1.9 5.5 0.7 1.1 0.2 7.1 1.3 0.2 7.3 1.8 0.0 0.0 0.2 7.3 1.8 0.0 0.0 0.2 7.3 1.8 0.0 0.0 0.2 7.3 1.8 0.0 0.0 0.0 0.1 1.5 0.1 0.2 7.3 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Leavenworth	43.3	0.3	13.5	0.1	2.2	7.2	2.4	0.1		5.6	
atomic 46.3 1.5 15.8 1.8 8.3 0.6 0.3 10.9 5.9 11  146.3 1.5 1.2 1.2 1.2 1.2 1.3 1.4 0.1 1.1 0.2 7.1 3.8 0.6 0.3 10.9 5.9 11  147.3 1.2 1.2 1.2 1.2 1.3 1.3 1.3 1.3 0.5 0.2 7.1 3.8 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Marshall	29.7	1.2	7.2	0.1	1.2	6.3	0.5	0.6	6.9	4.7	1.0
atomie 40.9 1.6 3.3 0.6 4.4 0.4 0.2 3.3 2.7 11 atomie 40.9 1.6 1.2 9.9 0.1 1.5 5.9 0.9 0.2 3.3 2.7 11 atomie 40.9 1.6 1.2 9.9 0.1 1.5 5.9 0.9 0.2 7.3 4.8 0.9 0.1 1.6 5.3 0.7 0.2 0.2 7.3 4.8 0.0 0.1 1.3 0.6 7.4 0.1 1.4 0.1 0.2 0.2 0.2 7.3 3.8 0.0 0.1 1.3 0.1 1.4 0.1 0.2 0.2 7.3 3.8 0.0 0.1 1.3 0.1 1.4 0.1 1.3 0.2 7.7 1.1 0.2 0.1 1.3 0.2 7.7 1.1 0.2 0.1 1.3 0.2 7.7 1.1 0.2 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1.5 0.1 1	Miami	46.3		15.8	1	1.8	8.3	9.0	0.3	10.9	5.9	1.2
atomie 40.9 1.6 12.7 0.1 1.5 5.9 0.9 0.2 7.1 3.8 0.0 0.2 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.2 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	Nemaha	16.3	0.4	3,3	1	0.6	4.4	0.4	0.2	3°3	2.7	1.0
atomie 40.9 1.6 12.7 0.1 1.9 7.7 1.1 0.2 9.1 6.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Osage	31.2	1.2	6.6	0.1	1.5	5.9	0.0	0.2	7.1	3,8	0.6
see 25.6 0.6 7.3 -1. 1.6 5.5 0.7 0.2 7.3 4.8 0 0 1 1.6 5.5 0.7 0.2 7.7 3.5 1 3.8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pottawatomie	40.9	1.6	12.7	0.1	1.9	7.7	1.1	0.2	9,1	0.9	0.5
See   25.5   0.6	Riley	32.2	1.5	6.6	0.1	1.6	5.5	0.7	0.2	7.3	4.8	9.0
tree 7.2 0.6 7.4 0.1 1.4 6.1 1.3 0.2 7.7 3.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Shawnee	25.6	0.6	7.3	1	1.0	5,3	0.5	0.2	6.1		
ggbn         14.3         0.1         3.3          0.5         3.9         0.3         0.1         2.9         1.5         0.1         2.9         1.5         0.1         2.9         1.5         0.1         1.5         0.8         0.9         0.0         0.1         1.5         0.8         0.1         1.5         0.8         0.1         1.5         0.8         0.1         1.5         0.8         0.1         1.5         0.8         0.1         1.5         0.8         0.1         1.5         0.8         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9         0.9 <td>Wabaunsee</td> <td>29.3</td> <td>9.0</td> <td></td> <td>0.1</td> <td>1.4</td> <td>6.1</td> <td>1.3</td> <td>0.2</td> <td>7.7</td> <td></td> <td>1.0</td>	Wabaunsee	29.3	9.0		0.1	1.4	6.1	1.3	0.2	7.7		1.0
Counties 588.1 15.9 182.7 1.2 26.8 110.9 14.6 4.2 130.4 82.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Washington	14.3	0.1	3,3	l B	0.5	3.9	0.3	0.1	2.9		1.7
counties         588.1         15.9         182.7         1.2         26.8         110.9         14.6         4.2         130.4         82.1         1           counties         588.1         15.9         182.7         1.2         26.8         110.9         14.6         4.2         130.4         82.1         1           con         15.6         0.6         3.8         0.2         0.6         2.9         0.2          5.6         2.0           con         35.1         1.2         14.9         3.8         1.3         5.6          5.6         2.0           con         25.1         0.1         1.6         3.1         11.2         8.1         0.3          5.6         2.0           ce         22.0         0.1         1.6         3.1         11.2         8.1         0.3          5.6         2.0           ce         22.0         0.1         1.6         3.4         0.5         1.1         0.2          5.2         0.7           ce         22.0         0.2         0.7         0.7         0.2         0.2         0.7         0.7           ce	Wyandotte	7.2	0.1	3.5	1	0.3	0.7	-	0.1	1.5	a	0.2
SOUTHEASTERN UNIT  10.0 0.1 1.8 0.2 0.6 2.9 0.2 3.3 0.5 0.9 0.0 0.4 3.7 0.9 0.9 0.1 0.1 0.2 0.1 0.1 0.2 0.2 0.2 0.4 3.7 0.9 0.9 0.1 0.1 0.2 0.1 0.2 0.2 0.2 0.3 0.5 0.9 0.3 0.5 0.9 0.1 0.1 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.3 0.5 0.3 0.5 0.3 0.5 0.3 0.5 0.3 0.5 0.3 0.5 0.3 0.2 0.3 0.3 0.5 0.3 0.3 0.5 0.3 0.3 0.3 0.5 0.3 0.3 0.5 0.3 0.3 0.5 0.3 0.3 0.5 0.3 0.3 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	All counties	588.1	15.9			26.8	Ö	۰		30.	82.1	19,3
10.0						SOUTHEASTERN	1					
ion 15.6 0.6 3.8 0.7 0.8 4.0 0.4 3.7 0.9 3.8 1.3 1.2 0.3 5.6 2.0 2.0 3.1 1.2 14.9 3.8 1.3 5.6 5.6 2.0 3.7 0.9 3.8 1.3 1.2 0.2 1.2 0.1 3.1 0.2 1.2 8.1 0.3 5.6 2.0 3.9 0.3 3.9 0.3 1.0 0.2 0.2 0.2 0.2 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	Allen	10.01	-	1 0	0 0	9 0	0 0	0 0		2 2	0	
15.1 1.2 14.9 3.8 1.3 5.6 5.6 2.0 1.0 1.0 1.2 1.1 1.2 1.1 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.1 1.2 1.2	Anderson	15,6	0.6	3,5	0.7	0 0	4.0	0.4	1 1	2.5	0.0	0.7
1040a 48.5 2.3 14.7 6.5 3.1 11.2 0.2 5.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	Bourbon	35.1	1.2	14.9		1.3	5.6	1	9		2.0	0.7
9.9 0.1 1.6 0.1 0.5 2.8 0.2 3.9 0.3 (1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Butler	21.2	0.1	3,1		1.2	8.1	0.3	2		1.1	1,0
tudua 48.5 2.3 14.7 6.5 3.1 11.2 0.3 6.2 2.7 1.5 (ee 22.0 0.2 1.5 1.5 (e. 22.0 0.2) 1.5 (e. 22.0 0.2) 1.5 (e. 22.0 0.2) 1.5 (e. 22.0 0.3 1.4 1.5 1.5 (e. 22.4 0.1) 1.7 1.5 (e. 22.3 0.3 4.4 0.7 1.5 1.4 1.5 1.5 1.6 1.4 1.5 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	Chase	6.6	0.1	1.6	0.1	0.5	2.8	0.2	ł		0.3	0.4
22.0 0.2 5.6 1.9 1.5 6.2 0.2 3.7 1.5 10.0 0.1 10.0 0.1 2.9 0.7 0.7 2.4 0.1 1.7 0.7 0.7 2.3 0.3 1.4 1.7 0.7 0.7 2.4 0.1 1.2 0.1 1.4 0.7 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Chautauqua	48.5	2.3	14.7	6.5	3.1	11.2	0.3	ì		2.7	1.5
10.0 0.1 2.9 0.7 0.7 2.4 0.1 1.7 0.7 2.5 25.3 0.3 4.8 0.6 1.2 8.7 0.3 8.2 0.7 2.7 2.5 2.7 1.6 7.8 2.6 1.4 7.2 0.9 6.0 0.5 5.9 1.4 1.5 2.7 1.6 7.8 2.6 1.4 7.2 0.9 7.4 1.5 1.5 1.1 4.0 0.1 10.5 3.0 1.1 1.2 0.1 2.2 0.1 0.6 3.4 0.1 10.5 3.0 1.1 1.2 0.1 2.2 0.1 0.6 3.4 0.1 1.9 0.3 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	Cherokee	22.0	0.2	5.6	1.9	1.5	6.2	0.2	1		1.5	1.2
ey $25.3$ 0.3 $4.8$ 0.6 $1.2$ 8.7 0.3 $$ 8.2 0.7 Vford $21.8$ 0.4 $5.2$ 0.7 0.9 6.0 0.5 $$ 5.9 1.4 $-$ 5.7 1.6 7.8 2.6 1.4 7.2 0.9 $$ 6.0 0.3 $$ 6.9 1.4 1.5 1.5 1.4 1.5 1.7 1.7 1.5 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	Coffey	10.0	0.1	5.9	0°7	0.7	2.4	0.1	1		0.7	
wford $21.8$ $0.4$ $5.2$ $0.7$ $0.9$ $6.0$ $0.5$ $$ $5.9$ $1.4$ $1.5$ $1.6$ $7.8$ $2.6$ $1.4$ $7.2$ $0.3$ $$ $4.4$ $1.5$ $1.5$ $1.6$ $1.5$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$ $1.6$	Cowley	25.3	0.3	4.8	9.0	1.2	8.7	0.3	1	8.2	0.7	0.5
anwood $25.7$ 1.6 7.8 2.6 1.4 7.2 0.3 4.4 1.5 $1.5$ anwood $25.2$ 0.4 $4.4$ 0.7 1.5 7.2 0.9 7.4 1.5 $1.1$ 2.2 0.9 7.4 1.5 1.1 $4.0$ 0.1 2.5 1.1 $1.1$ 4.0 0.1 2.5 1.1 $1.1$ 10.5 3.0 1.1 $1.7$ 7.8 0.1 4.3 0.2 1.1 $1.7$ 1.3 0.3 2.6 0.1 4.8 1.4 0.2 0.1 1.5 0.1 1.2 1.0 3.9 0.1 4.8 1.4 0.2 0.1 1.8 0.1 1.3 0.9 3.8 0.1 2.3 1.0 0.1 1.4 0.2 1.3 0.9 3.8 0.1 1.1 4.7 1.1 0.2 1.9 0.9 1.4 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1.1 0.2 1	Crawford	21.8	0.4	5.2	0°2	0.9	0.9	0.5	1		1.4	0.8
wood 25.2 0.4 4.4 0.7 1.5 7.2 0.9 7.4 1.5 1.1 4.0 0.1 2.5 1.1 4.0 0.1 2.5 1.1 4.0 0.1 2.5 1.1 4.0 0.1 1.7 7.8 0.1 2.5 1.1 1.1 4.0 0.1 1.2 0.1 1.7 7.8 0.1 10.5 3.0 1.1 1.2 0.1 1.2 0.3 2.6 0.1 4.3 0.3 0.3 1.9 0.1 1.9 0.1 1.5 0.3 1.9 0.1 1.9 0.1 1.0 1.0 0.1 1.0 0.1 1.0 0.1 1.0 0.1 1.0 0.1 1.1 1	EIK	27.7	1.6	7.8	2.6	1.4	7.2	0°3	1	4.4	1.5	
te $16.0$ $0.2$ $4.7$ $1.5$ $1.1$ $4.0$ $0.1$ $$ $2.5$ $1.1$ $4.0$ $0.1$ $$ $2.5$ $1.1$ $4.0$ $0.1$ $1.1$ $1.1$ $1.1$ $1.2$ $1.2$ $1.2$ $1.2$ $1.3$ $1.4$ $1.5$ $1.5$ $1.7$ $1.7$ $1.8$ $1.7$ $1.8$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.9$ $1.$	Greenwood	25.2	0.4	4.4	0.7	1.5	7.2	0.9	1	7.4	1.5	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Labette	16.0	0.2	4.7	1.5	1:1	4.0	0.1	1	2.5	1:1	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	רוחח	48./	I.,	19.8	2.3	1.	×°,	0.4	1	10.5	3.0	
mery $22.9$ 0.7 $8.9$ 1.2 1.0 $3.9$ 0.1 1.9 0.3 $1.4$ 0.5 $1.4$ 0.7 $1.4$ 0.1 $1.5$ 0.1 $1.5$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.1 $1.6$ 0.2 $1.6$ 0.1 $1.6$ 0.2 $1.6$ 0.2 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$ 0.9 $1.6$	Lyon	$\frac{11.2}{1}$	0.1			9.0	3.4	0.1	1		0.2	0.5
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Montgomery	22.9	0.7	۵°	1.2	1.0	9.0	0.1	}	4.8	1.4	0.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Morris	6.9	0.1	1.6	0.1	0°3		0.1	1	2.4	0.2	0.2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Neosho	13.8	0.1	3.7		0.9	φ, κ,	0.1	1	2.3	1.0	
12.6 0.2 3.5 1.1 0.9 3.1 0.2 1.9 0.9 20.0 1.1 29.7 22.6 107.5 4.9 94.7 24.3 1	M1 I SON	25.2	0.0	9.6	3.1	(	4.7	1 6	;	4.0	1.4	4.0
437.0 11.6 126.1 29.7 22.6 107.5 4.9 94.7 24.3 1	Moodson	12.6	0.2	3.5	1.1	0.9		0.2		1.9	0.9	0.8
	All counties	437.0	11.6	126.1	29.7	22.6	07.		1	7 70	24 3	15.6

WESTERN UNIT

Eastern Post- types hardwood hickory oak  nne	Eastern Dak- redcedar Dak- hardwood hickory 0.1 0.1 0.1 0.1 0.2 0.2	Post- Upland ackjack plains oak hardwoods	Elm-ash- cottonwood Cot 2.5 0.4 0.9 1.8 2.5 0.5 0.9 0.9	2. 0.	Willow	Lowland plains hardwoods	Elm-ash- locust	Non- stocked 0.3
er con			0000100001000 000010000000000000000000	2.1		1.4	0.1	0.3
rth be 2.3 y 2.7 on 3.31 on 4.7 on 0.4 on 0.1 on 0.5 on			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.0 0.0 0.0	1	4.0	0.1	0,3
rth be 2.77			00 H W 0 0 0 H 0 0 0	m 6 0 m		0		
rrth s.1 - 2.7  Is son son s.2 - 4 - 7  In son s.3 - 1 - 1 - 1  In son s.3 - 1  In son s.3 - 1			0 H W O O O H O O C	0.0	:	2.0	1	0.1
rth 8.77  Is 2.3  In 1.77  In 2.17  In 3.11  In 3.11  In 3.11  In 3.11  In 3.11  In 9.4  In 9.5  In 9.			- 40000 H 000 C		1	9.0	0.1	0.1
rth 1.0			, 000 H 000 G		1	0.8	!	0.2
in the 1.0		; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	, , , , , , , , , , , , , , , , , , ,	2.3	i	2.4	0.4	0.4
Is 2.3 Is 1.7 Is 2.7 Is 3.1 Is 0.4 Is 0.4 Is 0.7 Is 0.1 Is 0.1 Is 0.5 Is 0.1 Is 0.5 Is 0.1 Is 0.1			00000000000000000000000000000000000000	0.2	1	0.3	1 1	*
Is 1.7  1.7  2.7  2.7  3.1  3.1  1.7  4.7  1.7  1.7  1.7  1.9  1.9  1.9  1.9  1		:::::::::::::::::::::::::::::::::::::::	0 H 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9.0	!	0.5	0.1	0.1
Son 3.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1		:::::::::::::::::::::::::::::::::::::::	0.000	0.7	1	0.2	}	0.3
orth 3.1  1.2  1.3  2.3  3.1  4.7  4.7  1.1  1.7  1.7  1.0  1.0  1.0  1.0  1		1 1 1 1 1 1 1	0.00	9.0	1	0.8	0.1	0.1
Son 3.3 1		::::::	0.2	0.8	!	0.9	0.1	0.2
1		:::::		0.1	}	0.1	1 8	ŧ
1	11111111	: : : :	0.4	0.1	1	0.2	;	;
1 4.7  2.3  3.3  3.3  1 1.7  1 1.7  1 1.7  1 1.9  1 1.9  1 1.9  1 1.6  1 1.6  1 1.6	111111	: : :	0.1	;	;	;	;	;
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2.3 2.3 2.3 3.3 1 1 1.7 1.7 1.7 1.7 1.7 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	11111	3 ?	0.1	:	*	;	1	;
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an	1 1	;	1.8	0.7		0.5	1	0.3
In 1.7 1.7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0		1	2.2	1.1	;	1.0	0.1	0.1
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Ian	1 1	1	;	;	;	;	;	;
10	7 7	1 7	1	1 1	1	1	;	ï
Son 3.0	;		4.4	2.5	1	2.3	0.1	0.3
Son 3.0 1.9 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.	1 1	1 7	0.5	0.2	1	0.1	;	;
Son 3.1 1.0 1.0 1.0 1.9 1.1 2.4 0.4 0.4 0.4 1.9 1.9 1.9 1.6 1.6	1 1			1.6	!	1.6	0.2	0.2
Son 33.1	:	9 9 8 7	0.5	0.1	:	0.1	1	0.2
Son 3.1 1.0 1.0 1.0 1.9 1.9 1.9 1.0 1.9 1.9 1.6 1.6 1.6 1.6 1.6 1.6	;	•	0.1	;	:	:	;	1
1.0 1.0 1.9 1.9 1.9 1.9 1.9 1.9 1.6 1.9 1.6 1.6 1.6 1.6	1	:	1.0	0.8	1	0.8	0.1	0.2
Son 3.8 11.9 11.9 12.4 13.0 16 6.3 1.9 1.6 1.6 1.6	}	e 9	0.4	0.2	1	0.2	1	0.2
111 7.0	;	1	0.9		1	0.0	0.1	0.4
7.0 7.0 9.4 9.4 1.0 1.9 1.6 5.7 1.9 1.6 1.6 1.6	,	t #	0.7	0.7	1	0.4	1	0.1
2.4 9.4 1.0 6.7 1.9 1.6 1.6 1.6	1	1	5.0	1.3	1	1.9	0.2	0.3
10.4 3.0 6.3 6.7 10.9 10.6 11.6	:	* *		0.5	1		0°1	0.3
3.0 6.3 6.7 11.9 5.0 1.6	:	1 1	0.1	0.1	!		0.1	
6.7 6.7 ps 1.9 1.6 1.6 1.6 1.6 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	1	; †	1.4	0.7	!		1 6	
ps 6.0 1.6 1.6 1.6 1.6 1.6 1.6 1.6	7	7 1	51 6 51 6	1.5	1	ا ئ	7.0	0.0
ps 6.0 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0 1.6 0		7 9	2.0	1.2	1	1.1	0.2	0.3
ps 5.0 0 1.6 0 1.5 0	1	*	8.0	0.5	1	0.5	1 7	0.1
1.6 0 2.0 0	0.	# T	2.4	1./	1	1.4	0.1	
ns 2.0 0	0		0.4	0.6	1	0.3	1 1	0.2
	0	1 4	0.7	0.5	1	0.5	0.1 0.1	
6.3	0	1	3.0	1.2	!		0.1	0.2
0 2.8 2110		:	3, I	G*7	1	Q • T	0.1	\ ° 0
1.6	0	1		0,0	1	0.5	1 7	2.0
6.4 0.	0		2.6	1.8	1	1.3	0.1	0.3
0.1	' ·	1	0.1	! '	;	;	* (	1 0
Û	Û	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,3	1.3	1	1.1	0.1	0.4

(Table 11 continued)

WESTERN UNIT

						Forest type	type				
Sounty	All	Eastern redcedar- hardwood	Jak- hickory	Post- blackjack oak	Upland plains hardwoods	Elm-ash- cottonwood	Cottonwood	.//1110w	Lowland plains hardwoods	Elm-ash- locust	Non- stocked
Saline	3.1	\$	0.2	t it	9	1.1	0.6	1	1.0	0,1	0.1
Scott	0.1	1	Ţ	;	1	0.1	1	1 1	1 1	1	1
Sedqwick	6.8	1	0.5	1	t i	3.0	0.9	İ	1.9	0.2	0.3
Seward	2.0	1	0.1	;	1	0.7	0.0	1	0.5	1	0.1
Sheridan	1.2	1	0.1	1	1	0.4	0.3	i	0.4	1	1
Sherman	1	1 5	î Î	ī	1	1	9	1	?	1	1
Smith	3.6	1 9	0.1	}	1	1.5	0.9	1	0,0	0.1	0.2
Stafford	3.5	1	ŧ	-	-	0.5	1.8	ī	0.4	ì	0.8
Stanton	1	1	1 [	!	1 1	1	1	9	7 9	1	1 1
Stevens	0.6	1	;	;	1	0.3	0.1	1 0	0.2	1	ŧ
Sumner	15.2	1	1.0	1	1	9.6	3.3	1	2.8	0.5	1.0
Thomas	0.3	1	9	1	1	0.1	0.2	i	1	1	1
Tredo	1.5	i	0.1	;	;	0.7	0.2	1	0.4	1	0.1
Wallace	0.1	i	ţ	!	1	0.1	!	1	1	1	î
Wichita	1	8	†	1	1	;	•	Ť	1	1	î
All counties	132.8	1 8	7.8	1	!	71.2	48.6	1	40.8	3.9	10.5
All units	1,207.9	27.5	316.6	30.9	49.4	289.6	63.1	4.2	265.9	110.3	45.4

Table 12.--Area of commercial forest land by forest type and stand-age class, Kansas, 1981

	ATT						Stand-age	class (	years)					
Forest type	classes	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-140	141+
Eastern redcedar-hardwood	27.5	12.0	0.6	1.0	1.6	1	2.5	;	;	;		1 2	1.4	:
Oak-hickory	316.6	31.9	41.2	17.2	27.8	28.1	29.5	29.9	29.0	19.5	24.1	24.4	11.7	2.3
Post-blackjack oak	30.9	1.2	1.2	1.2	4.5	11.9	1.3	1,3	3.6	3.5	1 1	1.2	;	;
Upland plains hardwoods	49.4	5,3	7.6	3.9	6.1	4.9	5.6	7.8	1.2	1.2	1	1.2	2.5	1
Elm-ash-cottonwood	289.6	30.5	62.0	17.5	22.2	14.5	39.2	28.8	28.5	26.9	13.4	6.1	1	1
Cottonwood	68.1	1.2	1.3	2.4	4.2	9.4	9.9	17.1	10.6	2.3	6.7	6.3	1	ş
Willow	4.2	1.2	1.2	φ.	1	;	1.0	į	1	1	1	9	1	ę
Lowland plains hardwoods	265.9	21.6	24.9	13.5	22.6	10.8	36.0	47.8	43.7	14.2	19.9	8.7	1.2	1.0
Upland elm-ash-locust	110.3	36.8	34.9	6.6	10.8	1.2	3.0	2.4	4.9	2.2	2.0	1.0	1.2	1
Nonstocked	45.4	13.1	7.5	7.2	3.8	1	7.0	2.1	3.8	6.	į	1 1	!	ŀ
All types	1,207.9	154.8	192.9	74.6	103.6	80.8	131.7	137.2	125.3	70.7	66.1	48.9	18.0	3,3

Table 13.--Area of commercial forest land by forest type, stand-size class, and Forest Survey Unit, Kansas, 1981

ALL	UMI	

		ALL UNITS							
	411	Stand-size class							
Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Nonstocked areas				
Forest type									
Eastern redcedar-hardwood	27.5	2.7	2.8	22.0					
Oak-hickory	316.6	141.9	84.0	90.7					
Post-blackjack oak	30.9	8.5	17.6	4.8					
Upland plains hardwoods	49.4 289.6	18.7 145.1	16.8 47.0	13.9 97.5					
Elm-ash-cottonwood		59.6							
Cottonwood Willow	68.1 4.2	1.0	4.9 0.8	3.6 2.4					
Lowland plains hardwoods	265.9	170.7	46.7	48.5					
Upland elm-ash-locust	110.3	16.8	13.8	79.7					
Nonstocked	45.4	10.0	13.0	7307	45.4				
		565.0		363.1					
All types	1,207.9		234.4	363.1	45.4				
	15.0	NORTHEASTERN		10.0					
Eastern redcedar-hardwood	15.9	1.4	1.6	12.9					
Oak-hickory	182.7 1.2	74.5 1.2	49.9	58.3					
Post-blackjack oak	26.8	13.1	8.6	5.1					
Upland plains hardwoods	110.9	46.4	13.9	50.6					
Elm-ash-cottonwood Cottonwood	14.6	11.2	1.1	2.3					
Willow	4.2	1.0	0.8	2.4					
Lowland plains hardwoods	130.4	78.6	27.2	24.6					
Upland elm-ash-locust	82.1	15.6	9.2	57.3					
Nonstocked	19.3	15.0	9 · C	5/.5	19.3				
	588.1	243.0	112.3	213.5	19.3				
All types	300.1	SOUTHEASTERN I		\$13.3	19.3				
Factor and advantaged	11 6			0.1					
Eastern redcedar-hardwood	11.6	1.3 59.6	1.2 34.1	9.1 32.4					
Oak-hickory	126.1 29.7	7.3	17.6	4.8					
Post-blackjack oak	22.6	,							
Upland plains hardwoods Elm-ash-cottonwood	107.5	5.6 52.3	8.2 17.0	8.8 38.2					
Cottonwood	4.9	2.3	1.3	1.3					
Willow									
Lowland plains hardwoods	94.7	62.8	14.7	17.2					
Upland elm-ash-locust	24.3		2.5	20.6					
Nonstocked	24.3 15.6	1.2	2.5	20.6	15.6				
	437.0	192.4		132.4	15.6				
All types	437.0	WESTERN UN	96.6	132.4	13.0				
Factoria and a dead and a dead									
Eastern redcedar-hardwood	7.0	7.0							
Oak-hickory	7.8	7.8							
Post-blackjack oak		~~							
Upland plains hardwoods	71 2	46.4	16 1	0.7					
Elm-ash-cottonwood	71.2	46.4	16.1	8.7					
Cottonwood	48.6	46.1	2.5						
Willow Lowland plains hardwoods		20.2	4.0	6 7					
Upland elm-ash-locust	40.8	29.3	4.8	6.7					
Nonstocked	3.9 10.5		2.1	1.8	10.5				
		100.6		47.0					
All types	182.8	129.6	25.5	17.2	10.5				

Table 14.--Area of commercial forest land by forest type, stand-size class, and site class, Kansas, 1981

Forest type and	A11	Site class (cubic feet of growth/acre/year)				
stand-size class	classes	120+	85-119	50-84	20-49	
Eastern redcedar-hardwood						
Sawtimber	2.7		~~		2.7	
Poletimber	2.8		~~	1.2	1.6	
Sapling & seedling	22.0			.3.4	18.6	
All stands	27.5			4.6	22.9	
Oak-hickory	141 0		01 0	70.7	40.0	
Sawtimber	141.9		21.2	72.7	48.0	
Poletimber Sapling & seedling	84.0 90.7		11.7 7.4	36.8 34.5	35.5 48.8	
All stands	316.6		49.3	144.0	132.3	
Post-blackjack oak	310.0		40.5	144.0	132.3	
Sawtimber	8.5			1.2	7.3	
Poletimber	17.6			3.5	14.1	
Sapling & seedling	4.8	~~			4.8	
All stands	30.9		~~	4.7	26.2	
Upland plains hardwoods						
Sawtimber	18.7		3.0	9.3	6.4	
Poletimber	16.8		4.0	7.2	5.6	
Sapling & seedling	13.9		1.2	2.3	10.4	
All stands	49.4		8.2	18.8	22.4	
Elm-ash-cottonwood						
Sawtimber	145.1		27.6	65.0	52.5	
Poletimber	47.0		8.9	17.8	20.3	
Sapling & seedling	97.5		9.9	26.4	61.2	
All stands	289.6		15.4	109.2	134.0	
Cottonwood						
Sawtimber	59.6		4.8	21.9	32.9	
Poletimber	4.9				4.9	
Sapling & seedling	3.6		4.0	21 0	3.6	
All stands	68.1		4.8	21.9	41.4	
Willow	1.0			1.0		
Sawtimber Poletimber	1.0			1.0 0.8		
Sapling & seedling	2.4			1.2	1.2	
All stands	4.2			3.0	1.2	
Lowland plains hardwoods	7.2			3.0	1 . /-	
Sawtimber	170.7	2.1	35.5	100.7	32.4	
Poletimber	46.7	. 2.1	8.6	23.3	14.8	
Sapling & seedling	48.5		10.5	24.9	13.1	
All stands	265.9	2.1	54.6	148.9	60.3	
Upland elm-ash-locust						
Sawtimber	16.8		2.1	3.4	11.3	
Poletimber	13.8			2.3	11.5	
Sapling & seedling	79.7			13.0	66.7	
All stands	110.3		2.1	18.7	89.5	
Nonstocked	45.4		2.5	11.7	31.2	
All types						
Sawtimber	565.0	2.1	94.2	275.2	193.5	
Poletimber	234.4		33.2	92.9	108.3	
Sapling & seedling	363.1		29.0	105.7	228.4	
Nonstocked	45.4		2.5	11.7	31.2	
All stands	1,207.9	2.1	158.9	485.5	561.4	

Table 15.--Area of commercial forest land by forest type, stand-size class, and stocking percent, Kansas, 1981

			Stocking perc	ent of growing	-stock trees	
Forest type and	A1 1	Less than				
stand-size class	classes	16.7	16.7-60	61-100	101-133	134+
Eastern redcedar-hardwood						
Sawtimber	2.7			2.7		
Poletimber	2.8		1.6	1.2	1.0	
Sapling & seedling	22.0	w ==	14.4	6.4	1.2	
All stands	27.5		16.0	10.3	1.2	
Dak-hickory						
Sawtimber	141.9		48.4	77.2	16.3	**-
Poletimber	84.0 90.7		20.6	49.4	14.0	
Sapling & seedling			40.1	42.5	8.1	
All stands	316.6		109.1	169.1	38.4	
Post-blackjack oak						
Sawtimber	8.5	ma ===	2.5	6.0		
Poletimber	17.6	au 200	2.5	12.8	2.3	80
Sapling & seedling	4.8		3.6	10.0	1.2	
All stands	30.9		8.6	18.8	3.5	
Upland plains hardwoods						
Sawtimber	18.7		11.0	7.7		* -
Poletimber	16.8		11.3	5.5	and ord	~ ~
Sapling & seedling	13.9		6.5	7.4		
All stands	49.4		28.8	20.6		
Elm-ash-cottonwood						
Sawtimber	145.1	1.6		67.4	14.9	
Poletimber	47.0	m 1-4	26.2	20.8		
Sapling & seedling	97.5		59.9	35.1	2.5	*
All stands	289.6	1.6	147.3	123.3	17.4	
Cottonwood						
Sawtimber	59.6	- →	19.4	23.9	16.3	***
Poletimber	4.9		1.3	3.6	1 1	• •
Sapling & seedling	3.6		1.3	1.2	1.1	
All stands	68.1		22.0	28.7	17.4	
Willow		4 0				
Sawtimber	1.0	1.0				
Poletimber Sapling & seedling	0.8		0.8		1.2	• -
	2.4		1.2		1.2	
All stands	4.2	1.0	2.0		1.2	
Lowland plains hardwoods	170 7		64.0	00.0		
Sawtimber	170.7		64.9	92.3	13.5	
Poletimber Sapling & seedling	46.7 48.5	1.3	21.7 25.7	25.0 21.5		
					12.5	
All stands	265.9	1.3	112.3	138.8	13.5	
Jpland elm-ash-locust	4.0.0		4.1 0			
Sawtimber	16.8		11.3	4.5	1.0	
Poletimber Sapling & seedling	13.8 79.7	1 4	9.1	4.7	1.4	
, , , , , , , , , , , , , , , , , , , ,		1.4	51.5	25.4		
All stands	110.3	1.4	71.9	34.6	2.4	
lonstocked	45.4	45.4				
All types						
Sawtimber	565.0	2.6	218.7	281.7	62.0	
Poletimber	234.4		95.1	123.0	16.3	***
Sapling & seedling	363.1	2.7	204.2	139.5	16.7	
Nonstocked	45.4	45.4				
All stands	1,207.9	50.7	518.0	544.2	95.0	

Table 16.--Area of commercial forest land by forest type, site-index class, and Forest Survey Unit, Kansas, 1981 (In thousand acres)

			ALL	UNITS					
	A11			S:	ite-index	class (fee	t)		
Forest type	classes	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91+
Eastern redcedar-hardwood	27.5	1.9	10.0	6.0	4.9	4.7			
Oak-hickory	316.6		20.4	58.6	109.4	63.1	45.5	12.9	6.7
Post-blackjack oak	30.9		8.3	11.9	8.3	1.2	1.2		
Upland plains hardwoods	49.4		1.2	2.2	19.0	11.6	8.4	5.8	1.2
Elm-ash-cottonwood	289.6		3.5	22.1	60.4	90.2	67.1	36.4	9.9
Cottonwood	68.1			9.3	13.8	25.0	15.1	3.7	1.2
Willow	4.2		en w	1.2		1.0	2.0		10.00
Lowland plains hardwoods	265.9		7.6	12.4	40.4	94.8	70.8	35.7	4.2
Upland elm-ash-locust	110.3		8.2	28.9	37.5	20.7	12.9	2.1	
Nonstocked	45.4		3.9	11.3	9.8	14.3	3.6	2.5	
All types	1,207.9	1.9	63.1	163.9	303.5	326.6	226.6	99.1	23.2
	-,120.00		NORTHEAS					33.1	2010
Eastern redcedar-hardwood	15.9	1.9	7.2	3.1	2.7	1.0			
Oak-hickory	182.7		7.0	41.2	63.0	30.8	29.0	7.9	3.8
Post-blackjack oak	1.2		1.2	71.0		50.5	27.0	7.05	3.0
Upland plains hardwoods	25.8		4.6	0.6	14.1	4.6	5.0	2.5	
Elm-ash-cottonwood	110.9		3.5	18.4	23.5	18.4	28.7	15.6	2.8
Cottonwood	14.6		3.3	1.2	2.2	3.9	2.4	3.7	1.2
Willow	4.2			1.2		1.0	2.0	J. /	1.6
	130.4		4.1	5.8	23.2	39.3	39.0		2.0
Lowland plains hardwoods								17.0	
Upland elm-ash-locust	82.1		7.0	26.0	23.2	13.4	10.4	2.1	
Nonstocked	19.3		2.4	8.8	2.0	4.6	1.5		
All types	588.1	1.9	32.4	106.3	153.9	117.0	118.0	48.8	9.8
			SOUTHEAS						
Eastern redcedar-hardwood	11.6		2.8	2.9	2.2	3.7			
Oak-hickory	126.1	·	13.4	17.4	42.5	28.4	16.5	5.0	2.9
Post-blackjack oak	29.7		7.1	11.9	8.3	1.2	1.2		
Upland plains hardwoods	22.6		1.2	1.6	4.9	7.0	3.4	3.3	1.2
Elm-ash-cottonwood	107.5			3.7	19.4	40.3	21.5	15.5	7.1
Cottonwood	4.9			1.3		2.6	1.0		
Willow									
Lowland plains hardwoods	94.7			3.9	10.7	43.1	21.4	13.4	2.2
Upland elm-ash-locust	24.3	an	1.2	2.9	10.4	7.3	2.5		**
Nonstocked	15.6		1.5	2.5	4.1	5.0		2.5	
All types	437.0		27.2	48.1	102.5	138.6	67.5	39.7	13.4
			WESTER	RN UNIT					
Eastern redcedar-hardwood									
Oak-hickory	7.8				3.9	3.9		~ ~	
Post-blackjack oak						• •		-0.00	
Upland plains hardwoods									
Elm-ash-cottonwood	71.2				17.5	31.5	16.9	5.3	
Cottonwood	43.6			6.8	11.6	18.5	11.7		
Willow									* *
			3.5			12.4	10.4	5.3	
	3.9			***	3.9				
Nonstocked	10.5				3.7	4.7	2.1		
	182.8		3.5	9.5	47.1	71.0	41.1	10.6	
Lowland plains hardwoods Upland elm-ash-locust	40.8 3.9 10.5	400 mm	3.5	2.7	6.5 3.9 3.7	12.4	2.1	5.3	-

Table 17.--Area of commercial forest land by forest type and basal-area class, Kansas, 1981

(In thousand acres)

	All				Basal.	area class	(square feet	per acre)			
Forest type	classes	0-50	21-40	41-60	51-80	-80 81-100	101-120 121-140	121-140	141-150	161-180	181+
Eastern redcedar-hardwood	27.5	6.5	8.1	7.5	2.8	:	2.6	1	;	;	:
Oak-hickory	316.6	13.9	42.4	83.5	78.3	60.6	30.6	4.6	2.7	;	;
Post-blackjack oak	30.9	;	2.4	3.7	10.8	9,3	3.6		; ;	;	;
Upland plains hardwoods	49.4	1	5.4	16.2	12.0	11.2	2,5	1:1	;	;	ì
Elm-ash-cottonwood	289.6	11.5	49.7	88.9	56.8	31.0	34.3	8.5	3.0	5,9	: 1
Cottonwood	68.1	1.8	4.7	16.6	10.0	10.0	9.2	5.7	0.9		1.1
Willow	4.2	1.2	0.8	1.2	1	;	1.0	1	, ,	*	
Lowland plains hardwoods	265.9	3.5	36.6	63.3	65.1	47.3	40.5	9.6	;	. 1	1
Upland elm-ash-locust	110,3	27.6	29.3	24.2	19.6	8.4	1.2	. !	1	•	1
Monstocked	45.4	19.9	9.8	14.7	1.0	1	;	;	1 7	;	;
All types	1,207.9	85.9	190.2	319.8	256.4	177.8	125.5	30.6	11.7	5.9	4.1

Table 18.--Area of commercial forest land by forest type and distance to  $road^{1/}$ , Kansas, 1981

(In thousand acres)

	All			O	distance to	road (miles)			
Forest type	distances	0-1/8	1/8-1/4	1/4-1	1-2 1/2	2 1/2-5	5-10	10-20	50+
Eastern redcedar-hardwood	27.5	2.8	7.4	15.7	1.6	1	,		:
Oak-hickory	316.6	0.09	81.3	169.5	2.5	3,3	1	;	7
Post-blackjack oak	30.9	4.8	8.5	15.2	1	2.4	1	;	;
Upland plains hardwoods	49.4	15.8	11.4	17.8	!	4.4	1	ï	1
Elm-ash-cottonwood	289.6	62.2	90.5	124.8	2.3	3.5	i	6,3	1
Cottonwood	68.1	7.1	24.6	33.0	3.4	1	* *	* *	;
Willow	4.2	!	3.0	1.2		;	;	;	1 1
Lowland plains hardwoods	255.9	50.4	0.06	117.5	7.0	1	*	1.0	1
Upland elm-ash-locust	110.3	28.5	34.0	42.1	2.5	2.5	;	1.0	1
Nonstocked	45.4	8.9	13.1	23.4	1	;	;	;	;
All types	1,207.9	240.2	363.8	560.2	19.3	16.1		8.3	:

 $<sup>\</sup>frac{1}{2}$  A permanent road that is maintained at least once a year.

Table 19.--Area of commercial forest land by forest type and distance to water $\frac{1}{4}$ , Kansas, 1981

(In thousand acres)

	A11			0	istance to	water (miles	()		
Forest tyne	distances	0-1/8	1	1/4-1	1-2 1/2	2 1/2-5		10-20	20+
Factorn reducedar bar (Wood	27.5	2.8	1	4.9	7.8	1.4		ŧ	8.1
Day Letter of Terresoral Francisco	316.6	28.5		74.4	74.0	41.6		22.3	35.1
Doct-black oak	30.9	1.2		4.7	8.4	4.7		3.7	1.2
TOSE-UTACK CAN CAN	49.4	2 3		6.1	0.9	9.6		6.5	6.5
optand praids dat mosds	289 6	56.2		35.9	42.8	27.1		28.5	47.8
D 21 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	58.1	19.1		9.6	3.6	2.9		6.9	12.7
	C V	1		1.2	0.8	1.2		ę •	1
NITTOW Low land of a fine handwoods	265.9	44.9		36.3	37.2	47.4		31.1	25.9
The land of meash focus	110.3	6		22.1	26.6	23.6		3.6	11.5
Nonstacked	45.4	3.5		0.9	4.4	8.1	3.1	8.9	10.2
All types	1.207.9	169.4	81.0	201.2	211.6	167.6		111.5	159.0

 $1/\mathrm{Lakes}$  or ponds 5 acres or larger in area, and streams or rivers at least 66 feet in width.

Table 20.--Area of commercial forest land by forest type and stand-area class, Kansas, 1981

(In thousand acres)

	A11				Stand-		s (acres)			
Forest type	classes	1-4	6-9	10-19	20-39	40-79	80-159	160-319	320-639	640+
Factorn reducidar handwood		3.5	10.2	5.8	3.6		4.4		7	t 1
Dak-Mickory		33.1	67.7	94.7	43.6		17.2		9.3	1.9
Doct-black Dak		1.2	4.9	7.0	7.2		3.5		Ī	;
Haland olaine handwoode		0	7.3	21.2	10.2		0		7 8	,
Financh-cottonwood		74.1	83.6	66.7	34.9		8.7		1.1	1.3
Cottonwood		24.5	10.6	11.2	12.2		1.1		;	1.3
U-110m		0.8	1.2	1.2	1.0		•		7	;
Low and olains handwoods		57.4	72.7	74.5	33.0		10.6		*	;
Unland Planes access		27.6	30.5	19.8	16.8		6.0		*	* *
Nonstacked		14.8	15.5	7.5	1		1.2	. !		,
All types		243.8	304.2	309.7	162.5	i	52.7		10.4	4.5

Table 21.--Area of commercial forest land by stocking class based on selected stand components, Kansas, 1981

	A11		Stocking clas	sified in terms o	f
Stocking percentage	live trees	Growing-stock trees	Desirable trees	Acceptable trees	Rough and rotten trees
0-10	2.7	19.5	1,163.2	19.5	175.3
11-20	2.5	43.9	36.2	46.1	271.3
21-30	12.4	71.8	5.0	79.9	281.0
31-40	22.1	143.6	2.2	148.4	217.7
41-50	51.5	134.9		144.3	133.5
51-60	81.8	155.1	1.3	155.6	61.8
61-70	95.6	166.7	1 Can	175.1	43.7
71-80	119.0	156.0		150.2	20.3
81-90	176.5	129.9		124.2	2.1
91-100	187.4	91.5		87.5	1.2
101-110	154.8	52.5		38.6	
111-120	149.3	25.8		23.1	
121-130	82.4	16.7		14.4	
131-140	48.6		** **		
141-150	19.5				
151-160	1.8				
161+					
Total	1,207.9	1,207.9	1,207.9	1,207.9	1,207.9

Table 22.--Area of commercial forest land by forest type, physiographic class, and ownership class, Kansas,1981

					Ownershi	p class		
Forest type and	A11	National	Misc.			County and		Misc.
physiographic class	classes	Forest	federal	Indian	State	municipal	Farmer	private
Eastern redcedar-hardwood								
Hydric								
Hydromesic								
Mesic	2.4						2.4	
Xeromesic	25.1		1.6				16.3	7.2
Xeric		• •						
All classes	27.5		1.6				18.7	7.2
Oak-hickory								
Hydric	2.6						2.6	
Hydromesic	7.6						1.2	3.4
Mesic	132.7		0.9	1.2	2.6		76.7	51.3
Xeromesic	155.5		5.9			~ ~	88.5	61.1
Xeric	18.2						12.4	5.8
All classes	316.6		5.8	1.2	2.6		184.4	121.6
Post-blackjack oak								
Hydric								
Hydromesic	1.2						1.2	
Mesic	9.8						8.5	1.3
Xeromesic	17.6		1.2			70 mi	11.7	4.7
Xeric	2.3						1.1	1.2
All classes	30.9		1.2				22.5	7.2
Upland plains hardwoods								
Hydric								
Hydromesic								
Mesic	1.2						1.2	
Xeromesic	46.5		2.5			1.1	23.9	19.0
Xeric	1.7						1.7	
All classes	49.4		2.5			1.1	26.8	19.0
Elm-ash-cottonwood	77.4					4 · L	2001)	1.7.0
Hydric	9.0						2.3	6.7
Hydromesic	77.1		3.3		1.0		49.6	23.2
Mesic	203.5		5.3	1.5	± • 17	1.2	130.3	65.1
Xeromesic	203.3		5.5	1.7		4.6	130.3	05.1
Xeric			• • • • • • • • • • • • • • • • • • • •	• • •				
All classes	289.6		8.6	1.5	1.0	1.2	182.2	95.0
	~~~~~		3.0	L + 'J	1.00	1 0 /-	705.5	3.7.0
Cottonwood	2.0							2.0
Hydric	3.9		2.0	• •	2 6	**	5.9	3.9 7.8
Hydromesic	20.2		3.0		2.5	min 140		
Mesic	29.9			• •	* *		16.3	13.6
Xeromesic	6.9						4.8	2.1
Xeric	7.2						7.2	
All classes	63.1		3.0		2.5		35.2	27.4

(Table 22 continued on next page)

					Ownershi:	p class		
Forest type and	AT I	National	Misc.			County and		î1i sc .
physiographic class	classes	Forest	federal	Indian	State	municipal	Farmer	private
Willow								
Hydric		• -				* **		
Hydromesic	3.4						1.0	2.4
Mesic						• •		
Xeromesic	0.8							0.8
Xeric						• •	• -	10.00
All classes	4.2						1.0	3.2
Lowland plains hardwoods								
Hydric	2.5			140.40			2.5	
Hydromesic	52.3		2.7				31.6	18.0
Mesic	211.1		1.4				152.5	54.2
Xeromesic		-0 10						
Xeric								
All classes	265.9		7.1			• •	186.6	72.2
Upland elm-ash-locust								
Hydric								
Hydromesic						**		
Mesic			~ ~				-	
Xeromesic	100.5		5.8	1.2			54.7	38.8
Xeric	9.8						8.8	1.0
All classes	110.3		5.8	1.2			63.5	39.8
Nonstocked								
Hydric	9.1				1.4			7.7
Hydromesic	3.0		**				3.0	
Mesic	11.5						7.7	3.8
Xeromesic	19.7				••	• •	15.8	3.9
Xeric	2.1					٠-	2.1	
All classes	45.4				1.4		28.6	15.4
All types								
Hydric	27.1				1.4		7.4	18.3
Hydromesic	164.8		9.0		3.5	₩ ≈	97.5	54.8
Mesic	602.1		10.6	2.8	2.6	1.2	395.6	189.3
Xeromesic	372.6		17.0	1.2		1.1	215.7	137.6
Xeric	41.3						33.3	8.0
All classes	1,207.9		36.6	4.0	7.5	2.3	749.5	408.0

Table 23.--Area of noncommercial forest land by ownership class, Kansas, 1981

Ownership class	Total	Unproductive	Productive- reserved
National Forest			
Miscellaneous federal	13.8		13.8
Indian			
State	2.8		2.8
County and municipal	4.8		4.8
Farmer	89.1	89.1	
Miscellaneous private	40.3	39.3	1.0
All owners	150.8	128.4	22.4

Table 24.--Area of noncommercial forest land by forest type and Forest Survey Unit, Kansas, 1981

	ALL UNITS		
			Productive-
orest type	Total	Unproductive	reserved
Factorn rodcodar-hardwood	24.6	17 1	7 6

Forest type	Total	Unproductive	reserved
Eastern redcedar-hardwood	24.6	17.1	7.5
Oak-hickory	23.1	13.2	. 9. 9
Post-blackjack oak	76.0	76.0	. 7. 7
Upland plains hardwoods	8.8	8.8	0.5
Elm-ash-cottonwood	7.8	5.3	2.5
Cottonwood	2.5		2.5
Willow	4 0	4.0	-6 10
Lowland plains hardwoods	1.0	1.0	
Upland elm-ash-locust	5.0	6.0	
Nonstocked	1.0	1.0	
All types	150.8	128.4	22.4
NO	RTHEASTERN	UNIT	
Eastern redcedar-hardwood	19.0	11.5	7.5
Oak-hickory	7.6		7.6
Post-blackjack oak	2.4	2.4	
Upland plains hardwoods	2.3	2.3	
Elm-ash-cottonwood	~~		
Cottonwood	**	-4 =	
Willow		**	
Lowland plains hardwoods	~ ~		
Upland elm-ash-locust	3.8	3.8	
Nonstocked	1.0	1.0	
All types	36.1	21.0	15.1
	UTHEASTERN		
Eastern redcedar-hardwood	2.4	2.4	
Oak-hickory	12.0	9.7	2.3
Post-blackjack oak	73.6	73.6	
Upland plains hardwoods	6.5	6.5	
Elm-ash-cottonwood	1.5	1.6	au
Cottonwood		**	
Willow		**	
Lowland plains hardwoods	1.0	1.0	
Upland elm-ash-locust	2.2	2.2	
Nonstocked	-	**	
All types	99.3	97.0	2.3
701	WESTERN UN		
Eastern redcedar-hardwood	3.2	3.2	
Oak-hickory	3.5	3.5	
	3.0	3.3	
Post-blackjack oak			
Upland plains hardwoods			2 5
Elm-ash-cottonwood	6.2	3.7	2.5 2.5
Cottonwood	2.5		∠.5
Willow	PR		
Lowland plains hardwoods		76 M	
Upland elm-ash-locust		-0 =1	
Nonstocked			
All types	15.4	10.4	5.0

Table 25.--Area of nonforest land with trees by land use, forest type, and Forest Survey Unit, Kansas, 1981

				<b>V</b> .	ALL UNITS						
						Forest	type				
	ATT	Eastern redoedar-	Jak-	Post- blackjack	Upland plains	Elm−ash-			Lowland plains	Upland elm-ash-	-ucN
. and use	types	hartwood	hickory	oak	hardwoods	cottonwood	Cottonwood	41110w	hardwoods	locust	stocked
Cropland	63.0	1	4.1	2.7	1.3	27.4	1.6	:	10.0	7.3	8.6
Improved pasture	533.5	26.4	24.4	11.7	11.7	122.4	13.5	1	15.1	190.0	11.3.4
Wooded strips	150.0	5.3	4.8	1	5.4	51.6	5.1	2.0	49.9	5.6	19.3
Idle farmland	23.9	i	*	1 9	*	18.0	1 8	9	1.3	1.4	3.2
Marsh	22.7	i B	1 1	†	ę	8.6	1.1	1.4	0.9	}	10.7
Windbreaks	186.3	9,3	1.4	;	4.3	48.9	3.2	;	1.4	117,3	1
Wooded pasture	200.3	13.3	12.7	•	11.1	55.4	8.9	:	10.0	14.5	83.9
All uses	1,189.3	54.8	47.4	14.4	34.8	332.3	33.4	3.4	88.6	336.1	244.1
				NORTH	NORTHEASTERN UNI	<u> </u>					
Cropland	30.2	ţ	4.1	1	;	5.5	1.6	ŀ	7.0	5.9	5.4
Improved pasture	139.4	9.9	14.8	T \$	5.4	29.4	1	;	3,8	51.7	24.4
Wooded strips	62.6	1.9	1.2	•	3.9	22.3	£	1.0	21.4	5.9	8.0
Idle farmland	4.1	1	*	*	*	2.7	1	;	9	1.4	T B
Marsh	4.2	t II	:	* *	7 *	0.8	1.1	1.4	0.9	ŧ	;
Windbreaks	43.0	2.9	1.4	;	3.0	6.1	1 6	*	1.4	28.2	j ŝ
Wooded pasture	500.5	3.4	6.3	1	2.3	13.8	1	•	3.0	4.5	27.2
All uses	344.0	18.1	27.8	!	14.6	81.3	2.7	2.4	37.5	94.6	65.0
				SOUTHE	EASTERN UNI	_					
Cropland	13,6	I I	į	2.7	1.3	5.2	;	;	3.0	1.4	i
Improved pasture	225.2	7.3	9.6	11.7	6.3	37.3	1.4	î	8.1	112.1	31.4
Wooded strips	50,3	1	3.6	1	2.5	13.6	1	1.0	18.9	2.7	8.0
Idle farmland	2.5	1	1	1	:	1.2	1	,	1.3	!	;
Marsh	4.3	1	1	;	1 *	4.3	!	1	;	;	;
Windbreaks	6.99	1	1 7	7 7	1.3	5.9	-	;	;	59.7	;
Wooded pasture	95.2	6.7	6.4	1	6.2	20.1	1	;	7.0	10.0	38.8
All uses	458.0	14.0	19.6	14.4	17.6	87.6	1.4	1.0	38.3	185.9	78.2
				WE	WESTERN UNIT						
Cropland	19.2	1	;	;	;	15.0	1	;	;	;	3.2
Improved pasture	169.0	9.2	l	ŧ	1 1	55.7	12.1	;	3.2	26.2	62.6
Wooded strips	37.1	3.4	l I	;	ŧ	15.7	5.1	;	9°6	1	3°3
Idle farmland	17,3	2	*	;	1 1	14.1	;	ţ	;	;	3.2
Marsh	14.2	1	3	;	1	3.5	!	* *	,	;	10.7
Windbreaks	76.4	6.9	1	1	1 (	36.9	3.2	;	,	29.4	1 (
Wooded pasture	54.1	3,2	1	;	2.6	21.5	8.9	:	9 1	9	17.9
All uses	387.3	22.7	1	7 1	2.6	163.4	29.3	1	12.8	55.6	100.9

Table 26.--Area of nonforest land with trees by forest type and stand-size class, Kansas, 1981 (In thousand acres)

			Stand-	size class	
Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Nonstocked areas
Eastern redcedar-hardwood	54.8		16.8	38.0	
Oak-hickory	47.4	14.5	14.7	18.2	
Post-blackjack oak	14.4	1.3	6.2	6.9	
Upland plains hardwoods	34.8	8.8	11.0	15.0	
Elm-ash-cottonwood	332.3	51.8	144.3	136.2	
Cottonwood	33.4	23.8	9.6		
Willow	3.4		2.4	1.0	
Lowland plains hardwoods	88.6	18.7	40.4	29.5	
Upland elm-ash-locust	336.1	24.6	157.4	154.1	
Nonstocked	244.1				244.1
All types	1,189.3	143.5	402.8	398.9	244.1

Table 27.--Area of windbreaks by forest type, stand-size class, and Forest Survey Unit, Kansas, 1981

(In thousand acres)

		ALL UNITS			
			Stand-	size class	
Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Nonstocked areas
Eastern redcedar-hardwood	9.8		5.9	2.9	
Oak-hickory	1.4		1.4		
Post-blackjack oak					
Upland plains hardwoods	4.3	1.6	2.7		
Elm-ash-cottonwood	48.8	3.3	39.1	6.4	
Cottonwood	3.2		3.2		
Willow					
Lowland plains hardwoods	1.4	***	1.4		
Upland elm-ash-locust Nonstocked	117.4	11.4	87.0	19.0	
11 types	186.3	16.3	141.7	28.3	
		NORTHEASTERN I			
Eastern redcedar-hardwood	2.9			2.9	
Oak-hickory	1.4		1.4		
Post-blackjack oak			201		
Upland plains hardwoods	3.0	1.6	1.4		
Elm-ash-cottonwood	6.0	100	4.5	1.5	
Cottonwood		-			
Willow				**	
Lowland plains hardwoods	1.4		1.4		
Upland elm-ash-locust	28.3	2.8	19.8	5.7	
Nonstocked					
11 types	43.0	4.4	28.5	10.1	
		SOUTHEASTERN I	UNIT		
Eastern redcedar-hardwood					
Oak-hickory					
Post-blackjack oak					
Upland plains hardwoods	1.3	au	1.3		
Elm-ash-cottonwood	5.9		4.2	1.7	
Cottonwood					
Willow					
Lowland plains hardwoods			***		
Upland elm-ash-locust	59.7	1.3	48.3	10.1	
Nonstocked					
ll types	66.9	1.3	53.8	11.8	
		WESTERN UN:	IT		
Eastern redcedar-hardwood	6.9		6.9		
Oak-hickory					
Post-blackjack oak				ve 44	
Upland plains hardwoods			100.100	79 M	
Elm-ash-cottonwood	36.9	3.3	30.4	3.2	
Cottonwood	3.2		3.2		
Willow		**		**	***
Lowland plains hardwoods					
Upland elm-ash-locust Nonstocked	29.4	7.3	18.9	3.2	
11 types	76.4	10.6	59.4	6.4	
11: Ohea	70.4	10.0	37.4	0.4	

Table 28.--Area of wooded strips by forest type, stand-size class, and ownership class, Kansas, 1981

(In thousand acres)

					Ownersh	ip class		
Forest type and	A11	National	Misc.			County and		Misc.
stand-size class	classes	Forest	federal	Indian	State	municipal	Farmer	private
Eastern redcedar-hardwood								
Sawtimber	mi	PR 40			~ ~			~-
Poletimber	3.4						3.4	
Sapling & seedling	1.9						1.9	
All stands	5.3						5.3	89 1
Oak-hickory								
Sawtimber								
Poletimber	2.4		~ ~				2.4	
Sapling & seedling	2.7						2.7	
All stands	5.1						5.1	
Post-blackjack oak			,					
Sawtimber			- +4		***			
Poletimber		10.10						~0 ×0
Sapling & seedling								
All stands								
Ipland plains hardwoods		•						
Sawtimber				~ ~				***
Poletimber	2.8						2.8	1.6
Sapling & seedling	3.6						2.0	1.6
All stands	6.4						4.8	1.6
Ilm-ash-cottonwood		,	4.0					
Sawtimber	4.6		1.3	96 141			3.3	2.0
Poletimber	24.1 23.1		3.3				17.8	3.0
Sapling & seedling			4.6				17.4	5.7
All stands	51.8		4.6	=~			38.5	8.7
Cottonwood	0.5						0.5	
Sawtimber Poletimber	2.5 2.6			~~	,		2.5	2.6
Sapling & seedling	2.0							2.0
All stands	5.1						2.5	2.6
	2.1						2.5	2.0
Villow								
Sawtimber Poletimber	1.0						1.0	
Sapling & seedling	1.0						1.0	
All stands	2.0						2.0	
	۲۰۱)						2.0	
owland plains hardwoods Sawtimber	6.8						3.7	3.1
Poletimber	13.5						12.1	1.4
Sapling & seedling	14.9						13.9	1.0
All stands	35.2						29.7	5.5
	33.6						23.1	3.3
Jpland elm-ash-locust Sawtimber	1.4							1.4
Poletimber	8.1						6.6	1.5
Sapling & seedling	10.4		1.2				4.0	5.2
All stands	19.9		1.2				10.6	8.1
	19.2						16.1	3.1
onstocked	19.2						10.1	3.1
II types	15.2		1 2				0.5	A - E
Sawtimber Poletimber	15.3 57.9		1.3 3.3				9.5 46.1	4.5 8.5
Sapling & seedling	57.9 57.6		1.2				42.9	13.5
Nonstocked	19.2		1.6				16.1	3.1
							114.6	29.6
All stands	150.0		5.8				114.0	29.0

Table 29.--Area of wooded strips by forest type and site-index class, Kansas, 1981

(In thousand acres)

	All			S	ite-index	Site-index class (feet)	()		
Forest type	classes	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91+
Eastern redcedar-hardwood	5.3	!	;	1.9	3.4	-			;
Oak-hickory	5.1	1	•	2.4	t k	2.7	ł	;	*
Post-blackjack oak	;	1	;	,	1	;	,	;	;
Upland plains hardwoods	6.4	;	;	5.5	;	;	0.9	î	;
Elm-ash-cottonwood	51.8	1	1.2	19.2	6.6	15.3	1.5	4.7	1
Cottonwood	5,1	;	*	2.5	5.6	1	;	T P	7
Willow	2.0	1	1	1.0	;	†	;	1.0	E à
Lowland plains hardwoods	35.2	;	;	20.5	4.7	7.2	1.4	1.4	1
Upland elm-ash-locust	19.9	1 1	;	9.6	9.9	3.7	1	*	ŧ
Nonstocked	19.2	1	,	10.4	4.7	3.1	1.0	1	,
All types	150.0	:	1.2	73.0	31.9	32.0	4.8	7.1	

Table 30.--Area of wooded strips by forest type, basal-area class, and Forest Survey Unit, Kansas, 1981

Basal-area class (square feet per Basal-area class (square feet per 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						10	-					
Stern redecedar-hardwood 5.3 1.2 1.9 1.0 41-50 61-80 81-100 101-120 121-140 141-160 161-180 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ATT				-  -	area class	(square feet	per acre)			
Figure medicals—flandwords 5.3 1.2 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Forest type	classes	0-20	21-40	41-50	61-80	81-100	101-120	121-140	141-160	161-180	181+
February Services at the service at	Eastern redcedar-hardwood	5.3	1 1	1.9	1	1	;	1 1	;	;	*	3.4
### Stark and whomas	Oak-hickory	5.1	1.2	1.5	1	1.2	1	;	1 1	;	1.2	1
Just	Post-blackjack oak	1	•	1	;	;	;	;	;	* *	,	ę
### Standard   5.18   1.4   10.1   5.5   12.5   2.6   4.0   8.6   4.2   1.0	Upland plains hardwoods	6.4	3 1	7.4	1.5	6°0	1,4	:	1.1	;	;	1
Trombod   2.1   Trombod   2.2   Trombod   2.3   Trombod   2.	Elm-ash-cottonwood	51.8	1.4	10.1	5.5	12.5	3.6	4.0	8.6	4.2	1.0	0.9
Tartic femals hardwoods 35.2 3.0 6.1 2.5 8.8 4.0 6.5 1.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Cottonwood	5.1	1	;	;	;	2.5	1 1	1	t †	;	5.6
Tatch paris narwwoods 19-2 3-10 0-11 2-2 8-8 4-10 6-5 1-4 2-9 1-4 1-4 1-2 1-1 1-4 1-2 1-1 1-4 1-2 1-1 1-4 1-2 1-1 1-4 1-1 1-4 1-1 1-4 1-1 1-4 1-4 1-4	MOLILM	2.0	1 (	•	1 1	; ;	1	1.0	1	;	1.0	!
State   Stat	Lowland plains hardwoods	35.2	3.0	6.1	2.5	ထွေး	4.0	6.5	1.4	1	2.9	1 1
The proposed by the property of the property o	Upland elm-ash-locust	19.9	10	w .	2.5	າ ກຸກ ເ	2.4	1 4	1.4	t t	1	1.5
tem redecdar-hardwood 1.9	NOTISCOCKED	19.6	0.0	2.2		2.5	1.4	T • 4	1.0	-	1	;
term redecdar-hardwood 1.9 NORTHEATERN UNIT  thickopy state ash-locust 1.7 1.9 NORTHEATERN UNIT  NORTHEATERN UNIT  thickopy state ash-locust 1.9 1.2 1.2 1.2 1.2 1.4 1.6 0.9 1.4 1.6 0.9 1.4 1.6 0.9 1.7 1.6 1.0 0.9 2.9  Northeatern cottonwood 1.0 1.0 1.2 1.2 1.2 1.2 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1.4 1.1 1	All types	150.0	9.4	30.4	14.8	34.4	15.3	12.9	14.1	4.2	6.1	8.4
Extrem redeclar—hardwood         1.9         1.2         1.9         1.2         1.9         1.5         1.5         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0 <td></td> <td></td> <td></td> <td></td> <td>NOR</td> <td>THEASTERN U</td> <td>IIT</td> <td></td> <td></td> <td></td> <td></td> <td></td>					NOR	THEASTERN U	IIT					
Stand Distriction Reduced and Part Action Reduced and Part Reduced a	Eastern redcedar-hardwood	1.9	1	1.9	I		;			;	;	;
Standard	Oak-hickory	2.4	1.2	1	* 1	1.2	1	;	;	*		· •
Name of the control	Post-blackjack oak	;	3 2	!	1	í	9	,	;	1	;	1
18.0   14   14   4.1   5.6   2.7   1.0   0.9   1100   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.	Upland plains hardwoods	3.9	;	;	1.6	0.9	1.4	!	1	1	;	* *
Item wood   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0	Elm-ash-cottonwood	18.0	1.4	1.4	4.1	5.6	1	2.7	1.0	0.9	1 t	0.9
Name of the plants hardwoods   1,0   -2   -2   -2   -2   -2   -2   -2   -	Cottonwood	1	Ť	•	ę	;	;	;	;	;	1	;
Wand plains hardwoods         15,4         0.9         1.2         1.2         4.7         1.6         3.9          2.9           Band cell—ash-locust         7.9         2.4         1.4         2.7         4.1         1.6         3.9          2.9           strocked         62.6         5.9         7.3         9.6         17.6         4.4         7.6         4.0         0.9         2.9           stern redcedar-hardwood         2.7         1.5          1.6         4.0         0.9         2.9           st-blackjack oak         2.7         1.4         3.5         3.6          1.1           and plains hardwood         1.0         1.4         2.4         2.4         1.4         2.4         1.0           tonowood         1.0         2.9         1.4         2.4         1.4         2.4         1.0           tonowood         1.0         2.9         1.4         2.4         1.4         2.4         1.4         2.4         1.0           tonowood         1.1         2.4         1.4         2.4         1.4         2.4         1.4         2.7         1.1         1.0           to	Willow	1.0	1	;	;	ţ	•	1.0	I I	,	*	į
Stand reduced	Lowland plains hardwoods	16.4	0.9	1.2	1.2	4.7	1.6	3.9	1	1	2.9	!
types 62.6 5.9 7.3 6.4 1.4 1.1 1.4 1.6 1.6 1.6 types 62.6 5.9 7.3 9.6 17.6 4.0 0.9 2.9 5.9 types 62.6 5.9 7.3 9.6 17.6 4.0 0.9 2.9 5.9 types 62.6 5.9 7.3 9.6 17.6 4.0 0.9 2.9 5.9 types 62.6 5.9 7.3 9.6 1.4 7.6 4.0 0.9 2.9 5.9 types 62.6 5.9 7.3 9.6 1.4 7.6 1.1 1.2 types 62.6 1.4 3.5 1.4 3.5 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	Upland elm-ash-locust	11.1	1	1.4	2.7	4.1	;	†	1.4	!	*	1.5
types 62.6 5.9 7.3 9.6 17.6 4.4 7.6 4.0 0.9 2.9  stem rededar-hardwood 2.7 1.5 SOUTHEASTERN UNIT  stem rededar-hardwoods 2.7 1.5 1.4 3.5 3.6 1.1 1.1 1.0  trownood mid plains hardwoods 13.7 2.1 2.4 1.3 4.1 2.4 1.4 1.4 3.6  step ask-cottonwood 3.4 4.1 2.7 10.1 8.4 1.4 3.6 3.3 1.4 3.6  step ask-cottonwood 3.4 4.1 2.7 10.1 8.4 1.4 3.6 3.3 1.4 3.6  step ask-cottonwood 3.4 4.1 2.7 10.1 8.4 1.4 3.6 3.3 1.4 3.6  step ask-cottonwood 3.4 4.1 2.7 10.1 8.4 1.4 3.6 3.3 1.4 3.6  step ask-cottonwood 5.1 2.5 2.5 1.3 3.4 2.5 1.3 4.1 2.4 1.4 3.6 1.3 6.5 3.3 1.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Monstocked	7.9	2.4	1.4	1 8	1.1	1.4	1	1.6	:	:	; ;
Stern redcedar-hardwood         2.7         1.5         1.2           st-blackjack oak         2.7         1.5         1.4         3.5         1.4         1.1         1.1         1.1           and plains hardwoods         2.5         1.4         3.5         3.6         1.1         1.0           ttonwood         1.0         2.5         1.4         3.5         3.6         1.1         1.0           ttonwood         1.3         2.1         2.4         1.4         2.4         1.4         1.0           types         50.3         3.5         17.4         2.7         10.1         8.4         1.4         1.0           types         50.3         3.5         17.4         2.7         10.1         8.4         1.4         3.6         1.0           types         50.3         3.5         17.4         2.7         10.1         8.4         1.4         3.6         1.0           types         50.3         3.5         17.4         2.7         10.1         8.4         1.4         3.6         1.0           types         50.3         3.5         17.4         2.7         10.1         8.4         1.4         3.6         3.3	All types	62.6	5.9	7.3	9.6	17.6	4.4	7.6	4.0	0.9	2.9	2.4
stern redcedar-hardwood         2.7         1.5         1.2         1.1         1.2           Sch disting hardwoods steph acker oak land plains hardwoods and plains hardwoods and plains hardwoods are continued and plains hardwoods and plains hardwoods are continued are continued and plains hardwoods are continued and plains hardwoods are continued and plains hardwoods are continued are continued and plains hardwoods are continued and plains hardwoods are continued and plains hardwoods are continued are continued and plains hardwoods are continued					LUOS	HEASTERN UN	TI					
k-hickory         2.7         1.5         1.2           st-blacklack oak standwoods         2.7         1.4         3.5         3.6         1.1         1.0           m-ash-cottonwood         16.1         2.6         1.4         3.5         3.6         1.1         1.0           tronwood         1.0         2.1         2.4         1.3         4.1         2.4         1.7           nad delm-ash-locust         8.3         1.7         2.5         1.4         2.7         10.1         8.4         1.4         1.7           stern redcedar-hardwood         3.4         2.7         10.1         8.4         1.4         3.6         3.2           stern redcedar-hardwood         3.4         2.7         10.1         8.4         1.4         3.6         1.0           stern redcedar-hardwood         3.4         3.5         17.4         2.7         10.1         8.4         1.4         3.6         3.2           stern redcedar-hardwood         3.4         3.2         3.3         4.1         3.6         3.3         4.1           stern redcedar-hardwoods         1.7         3.2         3.3         4.2         1.4         3.6         3.3           sto	Eastern redcedar-hardwood		,		;	;	-		7			
st-black) aek oak	Oak-hickory	2.7	!	1.5	!	;	1	;	;	;	1.2	
Many plains hardwoods   2.5   1.4   3.5   3.6   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1   1.1	Post-blackjack oak		Ť	1	;	;	. !	;	,	* 7	, ,	Ť
meash-cottonwood         16.1          5.5         1.4         3.5         3.6          1.1          1.0           Howwood         1.0              1.7           Natored plains hardwoods         13.7         2.1         2.4          1.4         2.4          1.9           Natored m-ash-locust         6.3         1.4         4.1          1.4         2.4          1.9           Appes         50.3         3.5         17.4         2.7         10.1         8.4         1.4         3.6          3.2           Stern redcedar-hardwood         3.4           1.4         3.6          3.2           Abickory            1.4         3.6          3.2           Abickory              3.3           3.3            Abickory <td>Upland plains hardwoods</td> <td>2.5</td> <td>1</td> <td>1.4</td> <td>1</td> <td>;</td> <td>;</td> <td>į</td> <td>1.1</td> <td>;</td> <td>1 1</td> <td>,</td>	Upland plains hardwoods	2.5	1	1.4	1	;	;	į	1.1	;	1 1	,
10	Elm-ash-cottonwood	16.1	!	5.5	1.4	3.5	3.6	1 1	1.1	:	1.0	1 8
Now   No   No   No   No   No   No   No	Cottonwood	1	1	* †	;	*	;	,	,	1 (	;	;
Wland plains hardwoods       13.7       2.1       2.4        1.4       2.4        1.4       2.4        1.4       2.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.4        1.5        1.5        1.5        1.5        1.5        1.5        1.5        1.5	MOLITA	1.0	i	* *	*	1	•	,	0 0	ţ	1.0	1
types 5.3 3.5 1.4 2.7 10.1 8.4 1.4 3.6 3.2	Lowland plains hardwoods	13.7	2.1	2.4	1.3	4.1	2.4	;	1.4	ì	,	*
types         50.3         3.5         4.1          1.4         3.6          3.2           stern redcedar-hardwood         3.4          WESTERN UNIT          3.2          3.2           st-blackfory               3.2           st-blackfory </td <td>Nonetocked</td> <td>n c</td> <td>1 5</td> <td>2.2</td> <td>1</td> <td>1.4</td> <td>2.4</td> <td>1 7</td> <td>1</td> <td>*</td> <td>•</td> <td>•</td>	Nonetocked	n c	1 5	2.2	1	1.4	2.4	1 7	1	*	•	•
types       3.5       17.4       2.7       10.1       8.4       1.4       3.5	A11 + 1200	200	+ L	4.1		1.1		7.4				:
redcedar-hardwood 3.4 WESTERN UNIT  kory ackjack oak plains hardwoods 17.7 3.2 3.4 1.3 6.5 3.3  plains hardwoods 5.1 2.5 2.5  elm-ash-locust 2.5 3.3 3.3  sed 33.1 5.7 2.5 6.7 2.5 3.9 6.5 3.3	All types	20.2	3.7	1/04	7.7	10.1	8.4	1.4	3.6		3.2	1
redcedar-hardwood 3.4					_	ESTERN UNI						
ackjack oak	Eastern redcedar-hardwood	3.4	1	;	,	1 *	,	ţ	•	:	,	3.4
acklack oak acklack oak plains hardwoods	Jak-hickory	1	1	;	!	:	;	;	Ť	* *	,	ŧ
-cottonwoods 17.7 3.2 3.4 1.3 6.5 3.3 cottonwood 17.7 3.2 3.4 1.3 6.5 3.3 cottonwood 5.1 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 3.3 2.5 3.3 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 6.7 2.5 3.9 6.5 3.3 2.5 6.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 2.5 3.9 6.5 3.3 2.5 2.5 3.9 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	Hallackjack dak	i	* 7	•	:	;	;	1 7	*	9	;	,
-cottonwood 17.7 3.2 3.4 1.3 6.5 3.3 ood 5.1 2.5 2.5 1.2 6.5 3.3 ood 5.1 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.9 6.5 3.3 2.5 6.7 2.5 3.9 6.5 3.3 2.5 6.7 2.5 5.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 3.9 6.5 3.3 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2.5 5.7 2	Upland plains hardwoods	1 1 1	,	# (F	•	;	,	* *	;	1	8 8	4
plains hardwoods 5.1 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 3.9 6.5 3.3 2.5 3.3 2.5 3.9 6.5 3.3 2.5 3.3 2.5 3.9 6.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.3 2.5 3.	Elm-ash-cottonwood	17.7	1	3.2	1	3.4	1 1	1.3	6.5	3,3	1 1	t †
plains hardwoods 5.1 2.5 2.5 8.8 3.3 3.3 3.3 5.7 2.5 3.9 6.5 3.3	Cottonwood	5.1	1	7 1	1	;	2.5	1 8	;	8 7	*	2.6
Phants mardwoods 5.1 2.5 2.5 2.5 ked 3.3 5.7 2.5 3.9 6.5 3.3 5.7 2.5 5.7 2.5	WILLOW	1 1	;	1 (	1	1 9	* *		1 .	7	*	9
ked 3.3 2.5 3.3 8.7 2.5 3.9 6.5 3.3	Lowiand plains nardwoods	5.1	1	, 2.5	1 6	* *	1 1	2.6	i i	;	1	;
37.1 5.7 2.5 6.7 2.5 3.9 6.5 3.3	Nonstocked	» °°	1	•	2.5	1 0	E †	†	t P	* 1	•	:
3.1 5.7 2.5 3.9 6.5 3.3						2.5			, , ,			
	All types	3/01	-	2.,	5.5	6.7	2.5	3.9	6.5	3.3	1	0.9

Table 31.--Area of wooded strips by forest type and stand-age class, Kansas, 1981

(In thousand acres)

	All						Stand-age	Stand-age class (years)	ears)			
Forest tyne	classes	1-10	11-20	21-30	31-40	41-50	51-50	1	61-70 71-80 81-90 91-100	81-90	91-100	101+
Eastern redeedar-hardwood	5.3	!	1.9	3.4		;	1	-	;	;	;	:
Oak-hickory	5.1	1.2	1.5	;	†	2.4	!	1	!	!	;	ţ
Post-blackjack oak	1	;	;	;	;	1	1	!	!	!	!	;
Upland plains hardwoods	6.4	1.	3.6	!	1.4	1	1.4	1	!	;	;	;
Elm-ash-cottonwood:	51.8	6.1	17.1	10.2	4.8	5.1	2.1	3.2	3.2	1	;	;
Cottonwood	5.1	;	2.5	;	;	;	;	2.6	i	;	;	;
Willow	2.0	1.0	1	;	1.0	1	;	;	1	1	1	;
Lowland plains hardwoods	35.2	8.5	7.8	3.8	5.4	2.8	2.6	2.7	1.6	!	;	;
Upland elm-ash-locust	19.9	3.0	3.9	3.8	5.3	i	1	2.5	!	1.4	;	;
Nonstocked	19.2	5.3	4.1	2.4	;	;	3.0	3,3	:	!	1.1	-
All types	150.0	25.1	42.4	23.6	17.9	10.3	9.1	14.3	4.8	1.4	1.1	

Table 32.--Area of wooded strips by forest type, physiographic class, and ownership class, Kansas, 1981

(In thousand acres)

					Own	nership clas	s	
Forest type and	1 FA	National	Misc.			County and		Misc.
physiographic class	classes	Forest	federal	Indian	State	municipal	Farmer	private
Eastern redcedar-hardwood								
Hydric								
Hydromesic			~ ~					
Mesic	-							
Xeromesic	5.3						5.3	
Xeric				~ •				• •
All classes	5.3						5.3	
Oak-hickory								
Hydric			10.10				-40 -40	
Hydromesic	1.5						1.5	
Mesic	3.6		-9.4			••	3.6	
Xeromesic	3.9						3.0	
Xeric			up -0					
All classes	5.1						5.1	
Post-blackjack oak	2.1							
Hydric								
Hydromesic								
Mesic								
Xeromesic								
Xeric								
All classes								
Upland plains hardwoods								
Hydric								
Hydromesic								
Mesic	1.4						1.4	
Xeromesic	5.0						3.4	1.6
Xeric							3.4	1.0
		***						
All classes	6.4						4.8	1.6
Elm-ash-cottonwood								
Hydric								
Hydromesic	12.9		3.3				5.0	4.6
Mesic	38.9		1.3				33.5	4.1
Xeromesic		e0 -0						
Xeric								
All classes	51.8		4.6				38.5	8.7
Cottonwood								
Hydric						~ *		
Hydromesic	2.6							2.6
Mesic							10.10	-0 =0
Xeromesic	2.5						2.5	
Xeric								
All classes	5.1						2.5	2.6

(Table 32 continued on next page)

(Table 32 continued)

					Owi	nership clas	S	
Forest type and	A1 1	National	Misc.			County and		Misc.
physiographic class	classes	Forest	federal	Indian	State	municipal	Farmer	private
Willow								
Hydric								
Hydromesic	1.0						1.9	
Mesic	1.0	80 04					1.0	
Xeromesic						-4 4		
Xeric					-4 -4			
All classes	2.0						2.0	
Lowland plains hardwoods								
Hydric	1.4						1.4	pa
Hydromesic	10.9			***	No. 10		10.0	0.9
Mesic	22.9					mile red	18.3	4.6
Xeromesic								
Xeric								
All classes	35.2						29.7	5.5
Upland elm-ash-locust								
Hydric								
Hydromesic						-4-4		
Mesic Xeromesic Xeric 	1.5	sa						1.5
	15.6		1.2			nb nb	7.8	6.6
	2.8						2.8	
	19.9		1.2				10.6	8.1
Nonstocked								
		cab real				40.40		100 100
Hydromesic	1.4						1.4	
Mesic	10.8			i.e.	~ ~		7.7	3.1
Xeromesic	7.0						7.0	
Xeric								
All classes	19.2						16.1	3.1
All types								
Hydric	1.4					~	1.4	
Hydromesic	30.3	** **	3.3				18.9	8.1
Mesic	80.1		1.3	gat are			65.5	13.3
Xeromesic	35.4		1.2				26.0	8.2
Xeric	2.8			100 H			2.8	
All classes	150.0	~~	5.8				114.6	29.6

Table 33.--Area of wooded strips in private ownership by ownership class, owner tenure, and ownership size class, Kansas, 1981

Ownashia alasa	A7.1		ALL UNIT		oi so	1200 / 25		
Ownership class	A11					lass (acr		
and owner tenure	classes	1-5	5-10	10-20	20-50	50-100	100-500	500+
Farmer								
1-4 years	14.2		3.7	5.1	1.0	4.4		
5-9 years	19.3	3.3	4.1	6.2	2.9	2.8		
10-19 years	24.5	4 6	8.2	7.9	7.1	1.3		
20+ years	56.7	1.6	25.9	15.9	8.7	2.4	2.2	
Total	11.4.7	4.9	41.9	35.1	19.7	10.9	2.2	
Miscellaneous private								
corporation								
1-4 years	1.4		1.4					
5-9 years	1.0	-		-4-4			1.0	
10-19 years	w							
20+ years			***	-0.40				
Total	2.4		1.4				1.0	
Miscellaneous private								
individual								
1-4 years	3.7			2.3	1.4			
5-9 years	4.4	3.0	1.4	2+3	1.4			
10-19 years	5.2	0.9	1.4	1.3				
20+ years	13.8	1.4	2.5	7.3		1.6	1.0	
•								
Total	27.1	5.3	3.9	13.9	1.4	1.6	1.0	
All owners								
1-4 years	19.3	-	5.1	7.4	2.4	4.4		
5-9 years	24.7	6.3	5.5	6.2	2.9	2.8	1.0	
10-19 years	29.7	0.9	8.2	12.2	7.1	1.3		
20+ years	70.5	3.0	28.4	23.2	8.7	4.0	3.2	
Total	144.2	10.2	47.2	49.0	21.1	12.5	4.2	
		NORT	HEASTERN	UNIT				
Farmer								
1-4 years	7.1		1.5	1.2		1.4		
5-9 years	11.4		2.7	4.6	2.9	1.2		
10-19 years	12.1		5.6	2.9	3.6			
20+ years	18.5	1.6	5.5	5.0	4.2		2.2	
Total	49.1	1.6	15.3	13.7	10.7	5.6	2.2	
Miscellaneous private								
corporation								
1-4 years	1.4		1.4					
-	1.4		1.4					
5-9 years 10-19 years								
20+ years	an 10							
*								
Total	1.4		1.4					
Miscellaneous private individual								
1-4 years				* *				
5-9 years	3.0	3.0						
10-19 years	2.5	0.9		1.6				
20+ years	6.6	1.4		2.6		1.6	1.0	
Total	12.1	5.3		4.2		1.6	1.0	
All owners								
1-4 years	8.5	849.111	2.9	1.2		1.4	PR	
5-9 years	14.4	3.0	2.7	4.6	2.9	1.2		
	14.6	0.9	5.6	4.5	3.6	1.0		
10-19 years 20+ years	25.1	3.0	5.5	7.5	4.2	1.6	3.2	
Total	52.5	6.9	15.7	17.9	10.7	7.2	3.2	

(Table 33 continued)

		SOUT	HEASTER					
Ownership class	A11			Ownershi		lass (acr	es)	
and owner tenure	classes	1-5	5-10	10-20	20-50	50-100	100-500	500+
Farmer								
1-4 years	7.1		2.2	3.9	1.0			
5-9 years	4.6		1.4	1.6		1.6		
10-19 years	12.4		2.6	5.0	3.5	1.3		
20+ years	13.4		2.4	7.5	1.1	2.4		
Total	37.5		8.6	18.0	5.6	5.3		
Miscellaneous private								
corporation								
1-4 years							-	
5-9 years	1.0						1.0	
10-19 years	~~							• •
20+ years					***			
Total	1.0		+,-				1.0	
Miscellaneous private								
individual								
1-4 years	3.7			2.3	1.4	no		
5-9 years	1.4		1.4					~ ~
10-19 years	2.7			2.7				
20+ years	1.4			1.4				
Total	9.2		1.4	6.4	1.4			
All owners								
1-4 years	10.8		2.2	6.2	2.4			
5-9 years	7.0		2.8	1.5		1.5	1.0	
10-19 years	15.1		2.6	7.7	3.5	1.3		
20+ years	14.8		2.4	8.9	1.1	2.4		
Total	47.7		10.0	24.4	7.0	5.3	1.0	
		WE	STERN U	VIT			the all products and with the color-the registery signs.	
Farmer								
1-4 years						• •		* -
5-9 years	3.3	3.3	=					
10-19 years				*		• •		
20+ years	24.3		18.0	3.4	3.4			
Total	29.1	3.3	18.0	3.4	3.4			
Miscellaneous private								
corporation								
1-4 years								
5-9 years							* *	
10-19 years			** **					
20+ years				4 10				
Total								
Miscellaneous private individual								
1-4 years		• -		* *				
5-9 years 10-19 years		• •						
20+ years	5.8		2.5	3.3				* *
Total	5.8		2.5	3.3				
All owners								
1-4 years				* *	·* *		* *	
5-9 years	3.3	3.3		* *		• •	• •	
10-19 years	20.5	• •		÷		18.10	* *	
20+ years	30.6		20.5	6.7	3.4			
Total	33, 9	3.3	20.5	6.7	3.4			

Table 34.--Number of all live trees on commercial forest land by species group and diameter class, Kansas, 1981

### (In thousand trees)

						Diameter	class	(inches a	at breast	height)					
	All	1.0-	3.0-	5.0-	7.0-	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	2.9	4.9	6.9	8.9	10.9	12.9	14.9	16.9	18.9	20.9	22.9	28.9	38.9	39.0+
SOFTWOODS															
Eastern redcedar	8,560	4,553	2,393	466	408	84	69	39	10	2	5	-	1	;	7
Total	8,560	4,553	2,393	266	408	84	69	39	10	2	5	1	1	1	1
HARDWOODS															
Bur oak	8,760	3,323	1,100	1,133	715	524	332	288	588	264	209	198	279	88	00
Select white oak	13,569	2,932	3,198	2,463	1,908	1,460	702	346	253	125	81	44	49	7	
Other white oak	13,305	2,334	5,017	3,098	1,409	809	294	187	87	48	9	10	9	1	1
Select red oak	8,696	2,420	1,904	899	950	795	647	322	265	167	141	63	95	28	3
Other red oak	7,875	2,964	1,327	1,253	866	460	346	184	133	105	79	59	78	19	2
Select hickory	14,239	8,299	2,237	1,960	899	362	198	151	19	49	15	4	4	g T	-
Other hickory	12,579	6,802	2,943	1,474	730	378	150	99	12	11	7	m	m	1	1
pecan	2,783	832	937	317	220	204	107	69	37	23	13	15	2	4	1
Hard maple	4,477	2,872	944	260	235	88	51	19	2	2	2	1	i i		;
. Soft maple	3,209	1,322	505	292	279	194	122	150	98	78	47	36	09	20	9
Ash	38,977	19,576	8,911	4,173	2,791	1,445	681	545	306	246	110	70	117	9	1
Cottonwood	8,576	1,834	366	1,215	166	1,085	816	658	452	569	252	107	303	158	64
Basswood	5,162	3,681	643	259	171	136	108	70	38	21	19	6	9	-	;
Elm	98,365	67,331	19,142	6,684	2,684	1,202	542	297	161	111	69	43	84	14	<b>.</b>
Black walnut	27,581	10,664	6,161	4,485	2,085	1,833	1,077	639	356	153	64	44	16	4	;
Willow	5,094	2,517	904	466	332	238	245	153	94	09	45	19	19	П	_
Boxelder	12,941	5,172	2,862	2,087	1,144	099	436	197	159	108	44	30	32	6	П
Hackberry	54,901	28,513	12,848	5,238	3,149	1,943	1,215	762	538	303	174	105	87	56	1
Sycamore	2,315	798	295	140	207	108	106	73	96	51	37	39	52	31	7
Other hardwoods	53,074	27,537	11,647	6,665	3,286	1,583	1,023	547	336	185	122,	09	. 49	18	
Noncommercial species	58,163	35,575	13,691	4,894	2,160	956	498	177	117	09	25	17	20	3	1
Total	454,641	237,298	97,854	49,455	27,217	16,433	9,696	5,900	3,900	2,439	1,561	976	1,379	438	96
All species	463,201	241,851	100,247	50,452	27,625	16,517	9,765	5,939	3,910	2,441	1,566	976	1,379	438	95

Table 35.--Number of growing-stock trees on commercial forest land by species group and diameter class, Kansas, 1981

(In thousand trees)

						Diameter	class	(inches a	at breast	height)					
	A11	1.0-	3.0-	5.0-	7.0-	-0°6	11.9-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	2.9	4.9	6.9	8.9	10.9	12.9	14.9	16.9	18.9	20.9	22.9	28.9	38.9	39.0+
SOFTWOODS									,	,					
Eastern redcedar	7,926	4,430	2,255	992	314	99	63	22	3	2	5	1			;
Total	7,926	4,430	2,255	99/	314	99	63	22	3	2	5		1	-	1 9
HARDWOODS															
Bur oak	6,707	2,504	894	868	527	422	221	225	233	208	172	152	212	65	4
Select white oak	7,626	1,856	1,804	1,198	922	809	428	242	174	85	52	24	30	2	ŗ
Other white oak	10,252	1,502	4,174	2,347	1,108	999	179	163	29	34	4	5	3	;	1
Select red oak	6,987	1,944	1,520	929	834	683	524	226	214	141	108	40	77	18	2
Other red oak	5,659	2,140	994	819	584	389	216	154	95	77	29	90	61	15	1
Select hickory	11,987	6,884	2,025	1,601	750	347	156	117	53	42	∞	1	e	1	3
Other hickory	10,375	5,310	2,704	1,270	550	339	107	62	12	11	7	3	; j	;	;
pecan	2,198	707	684	204	207	185	89	20	27	18	œ	11	4	4	;
Hard maple	3,605	2,360	683	198	211	81	45	19	2	2	2	1	ŀ		!
Soft maple	2,071	197	226	177	258	141	87	116	84	63	38	28	43	10	m
Ash	31,604	16,178	7,589	3,029	2,202	1,149	482	388	216	168	74	42	82	5	;
Cottonwood	7,574	1,581	366	1,168	798	972	675	211	417	250	230	88	278	131	43
Basswood	3,105	2,115	432	198	98	72	79	59	92	19	7	6	3	1 1	1
Elm	73,418	53,415	13,971	3,427	1,410	620	196	169	73	42	59	25	35	9	į
Black walnut	22,281	8,778	4,961	3,572	1,602	1,537	839	517	566	126	41	31	∞	c	1
Willow	4,236	2,275	904	316	205	132	147	104	99	40	24	12	10	;	
Boxelder	7,033	3,507	1,487	948	584	201	164	29	38	56	9	e	2	;	!
Hackberry	42,443	22,043	10,313	3,884	2,257	1,497	968	584	430	241	130	82	29	19	;
Sycamore	2,010	798	449	112	135	73	94	64	93	47	31	39	45	24	9
Other hardwoods	30,305	17,739	7,006	2,560	1,315	724	387	227	154	102	46	25	16	4	-
Total	291,476	154,433	63,186	28,552	16,545	11,039	6,011	4,130	2,737	1,739	1,084	671	626	310	09
All species	299,405	158,863	65,441	29,318	16,859	11,105	6,074	4,152	2,740	1,741	1,089	671	676	310	09

Table 36.--Number of short-log trees on commercial forest land by species group and diameter class, Kansas, 1981

(In thousand trees)

						meter cl	Diameter class (inches	at	breast height)	ight)			
Species aroup	All	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	39.0+
COETWOODS													
Eastern redcedar	140	19	53	7	;	6	4	;	1	i	;	1	1
Total	140	19	53	7		6	4	:	;	-	1	1	!
HARDWOODS													
Bur oak	419	135	32	9	53	24	23	24	9	16	28	11	۲,
Select white oak	791	217	196	195	95	33	30	11	5	4	7	1	1
Other white sak	581	324	126	69	27	1	m	!	;	1	2	;	,
Select red oak	274	80	62	39	39	35	10	1	4	2	2	П	1
Other red oak	435	136	148	47	71	œ	16	7	ì	:	2	;	;
Select hickory	252	153	89	9	;	17	2	:	4	2	;	1	,
Other hickory	233	122	55	32	18	4	;	1	;	1	2	t I	1
Pecan	99	25	13	1	5	တ	8	2	2	4	;	1	1
Hard maple	36	30	ţ	;	9	;	*	•	1	1	;	;	,
Soft maple	09	1	;	16	19	7	7	3	2	;	5	г	ì
Ash	699	164	196	115	48	55	47	18	11	~	12	!	;
Cottonwood	268	1	60	41	107	6	23	5	7	9	4	4	2
Basswood	49	;	;	17	17	က	5	i	4	!	61	г	į
Elm	1,859	957	481	208	90	46	33	16	6	3	13	e	;
Black walnut	960	318	163	161	108	59	28	7	6	5	2	;	į
Willow	91	27	1	27	15	10	4	4	4	;	;	ł	!
Boxelder	523	175	120	6	28	28	40	30	2	1	;	;	;
Hackberry	1,354	464	376	148	169	107	41	23	11	7	9	2	;
Sycamore	26	1	46	;	7	:	m	!	:	,	1	;	;
Other hardwoods	2,085	1,081	299	191	96	79	35	13	6	œ	9		
Total	10,959	4,408	2,707	1,474	1,045	532	353	166	95	59	93	25	5
All species	11,099	4,475	2,760	1,481	1,045	541	357	166	95	59	93	25	5
					-				The state of the s	-			

Table 37.--Net volume of growing stock and sawtimber on commercial forest land by species group, Kansas, 1965 and 1981

	Growin	g stock	Sav	vtimber
Species group	19651/	1981	19651/	1981
	Thousand	cubic feet	Thousand	board feet $\frac{2}{}$
SOFTWOODS				
Eastern redcedar	216	4,591	511	10,871
Total	216	4,591	511	10,871
HARDWOODS				
Bur oak	36,925	60,920	173,124	286,120
Select white oak	11,501	34,121	36,194	107,383
Other white oak	10,484	19,854	19,229	36,531
Select red oak	26,020	45,828	103,966	183,457
Other red oak	19,438	27,445	84,208	118,665
Hickory	13,103	29,081	30,502	67,696
Pecan	8,040	8,986	36,974	28,043
Hard maple	2,259	3,120	5,563	6,280
Soft maple	9,005	21,011	37,644	37,834
Ash	35,714	61,700	107,524	185,760
Cottonwood	101,052	134,292	459,058	610,060
Basswood	3,614	6,031	15,438	25,763
Elm	89,243	30,599	358,279	69,531
Black walnut	36,751	57,868	107,950	169,979
Willow	10,772	11,629	44,370	47,901
Hackberry	43,909	86,674	169,049	299,581
Sycamore	24,613	21,538	125,288	105,631
Other hardwoods	14,941	16,027	38,675	119,143
Total	502,384	706,724	1,953,035	2,555,358
All species	502,600	711,315	1,953,546	2,566,229

 $<sup>^{-1}\!/\</sup>text{Figures}$  have been adjusted from those published after the 1965 survey to conform to 1981 areas because of changes in survey definitions and procedures.

 $<sup>\</sup>frac{2}{1}$ International  $\frac{1}{4}$ -inch rule.

Table 38.--Net volume of all live trees on commercial forest land by species group and diameter class, Kansas, 1981

(In thousand cubic feet)

					Dian	Diameter class	ss (inches	s at breast	t height)				
	A11	5.0-	7.0-	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	6.9	8.9	10.9	12.9	14.9		18.9	20.9	22.9	28.9	38.9	39.0+
SOFTWOODS													
Eastern redcedar	5,560	1,757	1,507	522	880	495	165	99	136	;	1	1	1
Total	5,560	1,757	1,507	555	880	495	165	65	136			1	1
HARDWOODS													
Bur oak	74,323	2,702	2,776	3,714	3,441	4,121	6,020	7,350	7,189	8,217	17,306	6,659	1,828
Select white oak	51,342	6,172	8,006	9,441	7,059	4,882	4,516	3,154	2,573	1,664	3,060	069	125
Other white oak	23,758	5,753	5,035	4,691	2,447	2,530	1,537	1,112	170	231	252	1	!
Select red oak	50,853	2,237	4,375	5,853	7,090	4,566	5,710	4,465	4,779	2,314	6,201	2,729	534
Other red oak	32,530	2,042	3,197	3,148	3,594	3,053	2,703	2,819	2,814	2,710	4,309	1,797	344
Select hickory	19,345	3,617	3,753	3,022	2,133	2,721	1,484	1,634	533	190	258	1	1
Other hickory	13,245	2,768	3,038	3,057	1,837	1,211	312	373	348	175	126	1	ţ
pecan	10,586	676	1,036	1,963	1,597	1,187	1,071	199	599	884	456	484	1
Hard maple	3,389	533	1,033	563	549	279	49	43	66	113	;	128	1
Soft maple	24,380	657	1,527	1,621	1,531	2,746	2,478	2,445	2,104	1,815	3,780	2,084	1,592
Ash	74,481	8,696	12,292	10,909	7,291	8,434	6,452	6,441	3,937	2,686	6,802	541	1
Cottonwood	145,155	2,707	4,588	9,618	11,409	13,089	11,941	9,544	11,156	6,362	25,242	21,936	17,563
Basswood	7,565	466	641	929	1,328	1,224	945	658	439	510	247	63	115
Elm	52,613	12,449	9,859	7,109	4,746	4,001	2,691	2,468	2,086	1,715	4,108	1,293	88
Black walnut	68,747	9,982	8,417	12,767	11,299	9,683	7,058	4,238	2,123	1,879	827	474	i
Willow	15,402	783	1,190	1,472	2,520	2,611	1,898	1,792	1,485	634	893	4	120
Boxelder	22,328	3,635	3,634	3,200	3,341	2,261	2,078	1,970	. 622	652	290	304	41
Hackberry	104,831	10,607	12,300	13,297	13,423	12,380	12,255	9,010	6,749	4,775	6,389	3,646	!
Sycamore	22,924	272	836	813	1,226	1,219	2,592	1,746	1,644	2,268′	4,017	4,414	1,877
Other hardwoods	65,918	11,230	11,632	8,701	8,459	6,725	5,846	4,536	2,857	2,037	2,452	1,314	129
Noncommercial species		9,641	7,383	4,870	4,022	2,059	1,979	1,039	191	516	998	156	3
Total	917,013	97,625	97,625 106,548	110,758	100,342	90,982	81,615	67,504	55,039	42,347	88,181	51,716	24,356
All species	922,573	99,382 108	108,055	111,313	101,222	91,477	81,780	67,569	55,175	42,347	88,181	51,716	24,356
						,		,					

Table 39.--Net volume of timber on commercial forest land by class of timber and softwoods and hardwoods, Kansas, 1981

### (In thousand cubic feet)

	A11		
Class of timber	species	Softwoods	Hardwoods
LIVE TREES			
Growing-stock trees			
Sawtimber	200 054	1 700	200 400
Saw log portion	392,254	1,762 176	390,492
Upper stem portion	98,594		98,418
Subtotal	490,848	1,938	488,910
Poletimber	220,467	2,653	217,814
Total growing stock	711,315	4,591	706,724
Cull trees			
Rough and rotten cull tree			
Sawtimber	72,857	221	72,636
Poletimber	70,972	338	70,634
Subtotal	143,829	559	143,270
Short-log trees	67,429	410	67,019
Total cull	211,258	969	210,289
TOTAL LIVE TREES	922,573	5,560	917,013
SALVABLE DEAD TREES	4,448	68	4,380
ALL CLASSES	927,021	5,628	921,393

Table 40.--Net volume of growing stock, sawtimber, short-log, and rough and rotten trees on commercial forest land by individual species, Kansas, 1981

Casaina	Total	Growing	Short-log	Rough and	S- 1: 1
Species	all live	stock	cull	rotten cull	Sawtimber
		Thousand ou	his foot		Thousand 1
		Thousand cu	bic reet		board feet
Eastern redcedar	5,560	4,591	410	559	10,871
Bur oak	74,323	60,920	6,634	6,769	286,120
White oak	2,988	2,663	243	82	10,136
Chinkapin oak	48,354	31,458	4,632	12,264	97,247
Post oak	23,758	19,854	1,787	2,117	36,531
Northern red oak	50,034	45,152	1,723	3,159	180,754
Shumard oak	819	676	32	111	2,703
Black oak	21,214	18,536	977	1,701	80,893
Blackjack oak	4,519	2,400	1,077	1,042	3,827
Pin oak	6,474	6,186	43	245	33,378
Shingle oak	323	323			567
Shellbark hickory	1,667	1,481	90	96	2,936
Mockernut hickory	1,752	1,401	155	195	5,741
Shagbark hickory	15,926	14,506	683	737	34,370
Bitternut hickory	12,740	11,270	883	587	23,281
Black hickory	505	423	51	31	1,368
Pecan	10,586	8,986	757	843	28,043
Sugar maple	3,389	3,120	125	144	6,280
Silver maple	24,380	21,011	1,078	2,291	87,834
White ash	2,080	1,641	138	251	4,191
Green ash	72,401	60,059	5,258	7,084	181,569
Eastern cottonwood	145,155	134,292	4,011	6,852	610,060
American basswood	7,565	6,031	734	800	25,763
American elm	41,985	25,366	5,690	10,929	59,400
Siberian elm	1,041	343	264	434	271
Slippery elm	9,587	4,890	2,056	2,641	9,860
Black walnut	68,747	57,868	5,495	5,384	169,979
Black willow	15,402	11,629	821	2,952	47,901
Boxelder	22,328	10,376	3,487	8,465	22,839
Hackberry	104,831	86,674	9,118	9,039	299,581
American sycamore	22,924	21,538	250	1,136	105,631
Black cherry	1,936	1,250	366	320	3,455
Black locust	4,357	2,636	627	1,094	5,293
Honeylocust	27,648	16,555	3,739	7,354	49,897
Kentucky coffeetree	6,771	5,389	424	958	19,474
Northern catalpa	3,092	1,107	358	1,627	2,151
Common persimmon	1,347	1,113	24	210	612
Red mulberry	19,463	6,448	3,119	9,896	11,575
River birch	818	781		37	2,278
Sugarberry	399	344		55	1,569
Texas buckeye	87	28	20	39	
All species <u>2</u> /	889,275	711,315	67,429	110,531	2,566,229

 $<sup>\</sup>frac{1}{I}$ International  $\frac{1}{4}$ -inch rule.

Table 41.--Net volume of noncommercial species (nongrowing-stock volume) on commercial forest land by individual species, Kansas, 1981

### (In thousand cubic feet)

Species	Nongrowing-stock (rough tree) volume
Ailanthus	136
Eastern redbud	1,329
Hawthorn	63
Osage orange	30,970
Eastern hophornbeam	300
All species	33,298

 $<sup>\</sup>frac{2}{}$  These totals do not include volume for noncommercial species. Volumes for individual noncommercial species are found in Table 41.

Table 42.--Net volume of growing stock on commercial forest land, by species group and Forest Survey Unit, Kansas, 1981

(In thousand cubic feet)

	_	For	est Survey U	nit
	-	North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOF TWOODS				
Eastern redcedar	4,591	2,446	2,112	33
Total	4,591	2,446	2,112	33
HARDWOODS				
Bur oak	60,920	29,902	15,644	15,374
Select white oak	34,121	22,050	12,071	
Other white oak	19,854	2,107	17,747	
Select red oak	45,828	25,577	20,251	
Other red oak	27,445	15,385	12,060	
Select hickory	17,388	11,801	5,587	
Other hickory	11,693	6,665	5,028	
Pecan	8,986	. 265	8,578	143
Hard maple	3,120	1,938	1,182	
Soft maple	21,011	10,459	10,552	
Ash	61,700	13,845	26,734	21,121
Cottonwood	134,292	43,561	9,786	80,945
Basswood	6,031	5,618	413	
Elm	30,599	13,932	12,589	4,078
Black walnut	57,868	32,366	23,004	2,498
Willow	11,629	5,021	4,204	2,404
Boxelder	10,376	3,563	1,831	4,982
Hackberry	86,674	37,640	38,441	10,593
Sycamore	21,538	11,447	9,787	304
Other hardwoods	35,651	19,505	11,527	4,619
Total	706,724	312,647	247,016	147,061
All species	711,315	315,093	249,128	147,094

Table 43.--Net volume of sawtimber on commercial forest land, by species group and Forest Survey Unit, Kansas, 1981

### (In thousand board feet) $\frac{1}{}$

		Fore	est Survey U	nit
		North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	10,871	5,106	5,765	
Total	10,871	5,106	5,765	
HAROWOODS				
Bur oak	286,120	124,290	72,739	89,091
Select white oak	107,383	77,476	29,907	
Other white oak	36,531	6,145	30,386	
Select red oak	183,457	104,284	79,173	
Other red oak	118,665	70,133	48,532	
Select hickory	43,047	24,060	18,987	
Other hickory	24,649	14,453	10,196	
Pecan	28,043	575	26,708	760
Hard maple	6,280	3,635	2,645	
Soft maple	87,834	41,464	43,370	
Ash	185,760	42,154	87,049	56,557
Cottonwood	610,060	196,103	39,358	374,599
Basswood	25,763	24,807	956	
E1m	69,531	25,507	29,537	14,487
Black walnut	169,979	96,526	65,992	7,461
Willow	47,901	19,065	16,467	12,369
Boxelder	22,839	5,924	6,077	10,838
Hackherry	299,581	112,814	137,513	49,254
Sycamore	105,631	56,268	47,653	1,710
Other hardwoods	96,304	53,824	29,536	12,944
Total	2,555,358	1,102,507	822,781	630,070
All species	2,566,229	1,107,613	828,546	630,070

 $<sup>\</sup>frac{1}{I}$ International  $\frac{1}{4}$ -inch rule.

# (In thousand cubic feet)

NORTHEASTERN UNIT

Secretary   Select   Other   Other   Select   Other   Select   Other   Select   Other   Select   Other   Ot	County Atchison Brown Clar	All	Eastern	Bur	Salect	Other	Select	Other	Splact	Other		Hand	Coft	
1560   1547   124   1541   1,319   125   1555   560   452   305   223   154   154   154   154   154   154   154   154   1,319   115   155   154   121   1,319   154   1,515   154   1,515   154   1,515   154   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1,515   1	Atchison Brown	Species	redcedar	oak	white oak	white oak	red oak	red oak	hickory	hickory	ec	maple	maple	Ash
10,647   122   965   1194   118   1372   556   421   266     213   144   147   147   152   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147	Brown	15.257	154	1.511	1.319	125	1.558	029	459	305	:	235	366	740
10,550   44   1,653   47   47   47   47   47   47   47   4	386	10 457	132	985	1,194	118	1,372	558	421	266	1	223	173	517
use         9 587         64         127         223         176         266         267         267         187         187         187         187         187         187         187         187         186         183         186         183         186         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187         187 <td></td> <td>10,580</td> <td>49</td> <td>1,053</td> <td>471</td> <td>24</td> <td>562</td> <td>221</td> <td>182</td> <td>144</td> <td>1</td> <td>31</td> <td>395</td> <td>527</td>		10,580	49	1,053	471	24	562	221	182	144	1	31	395	527
14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         15         16         15         17         17         26         18         17         17         26         18         14         16         18         16         18         16         18         16         18         16         18         16         18         16         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18         18<	Dickinson	9,597	54	867	423	23	722	223	179	134	-	51	292	430
11	Doniphan	14,275	148	1,477	1,110	66	1,607	598	526	566	!	178	446	640
11	Douglas	12,833	163	840	850	163	1,059	1.327	1,049	498	1	18	310	287
12,804	Franklin	11,661	121	966	789	116	935	917	77	377	98	14	391	395
The countries of the co	Geary	10,510	52	1.074	724	55	595	475	375	248	- 1	7	352	438
Secondary   Seco	Jackson	12,804	92	1,314	707	46	883	194	316	150	;	. rc	791	839
1,001   135   1,458   1,204   156   1,355   5,53   419   222   - 188   1,111   13,713   198   1,391   1,458   1,591   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791   1,791	Jefferson	21,868	170	1,607	1.437	215	1.615		39	713	;	12	552	637
wherth [27,197] 92 2,572 1,669 145 1,799 2,187 1,038 662 75 2 4 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Johnson	14,091	135	1,458	1,204	156	1,395		41	222	;	188	453	665
13,713   108   1,391   387   44   1,031   331   373   192   984   76   488   64   379   180   17,184   125   1,229   199   1,290   194   1,290   194   1,290   194   1,290   194   1,290   1,44   1,291   1,290   1,44   1,291   1,290   1,44   1,33   1,44   1,33   1,44   1,33   1,44   1,33   1,44   1,33   1,44   1,33   1,44   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34   1,34	Leavenmorth	28,197	65	2,572	1 689	145	1 789	2 187	1 038	642	75	201	872	1 076
25,539 242 2,645 2,281 180 2,563 964 776 458 64 379 atomic 22,360 190 2,040 1,996 1199 1,290 794 652 379	Marchall	13,713	108	1 391	837	44	1 031		373	192		34	27.73	619
atomie 22,350 10 2,040 1,950 199 1,290 194 652 379 115 195 165 1714 125 1,648 1,930 194 1,630 194 1,930 194 1,630 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 1,930 194 194 194 194 194 194 194 194 194 194	Miami	25,719	242	2,645	2 281	180	2 563	964	776	458	64	379	844	1 324
the 17,114 125 1,615 1,204 109 1,290 194 652 379 74 115 115 116 169 1,646 116 1,946 119 1,940 119 115 115 115 115 115 116 116 119 1,946 119 1,940 119 119 119 119 119 119 119 119 119 11	Now See See	6 733	35	643	377	27	750	105	175	200	5		545	1,051
13,618   10   1,000   1,400   1,400   1,400   1,100   1,101   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100   1,100	Ocade	17 114	125	1 615	1 220	100	1 290	707	652	370		7.7	700	104
Fig. 65.70 16.1 1,648 1,133 97 1,386 713 653 357 106 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11	0044	22 350	100	2,010	1,466	140	1,630		011	707	}	115	200	000
Fig. 13, 618 98 1,346 971 56 1,142 362 382 254 115 30 1097 78 1,734 1,030 70 939 597 454 316 30 315 097 78 1,734 1,030 70 939 597 454 316 30 315 097 78 1,734 1,030 70 939 597 454 316 30 315 093 2,446 29,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 265 1,938 10, 22,565 1,638 11,801 6,665 269 248 2,665 1,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,938 11,801 6,665 248 21,940 265 341 13,210 6,62 20 1,940 265 341 322 15,210 3,940 2,940 1,882 21,724 31,210 2,940 1,882 21,724 31,210 2,940 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941 1,941	Dilov	16,530	161	1,648	1,430	143	1,936	•	523	367	:	106	040	600
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tree 5,499 29 1,534 1,535 78 652 260 164 75 40 71  tree 4,153 34 371 407 72,577 15,385 11,801 6,665 265 1,938 10, 20 11,504 36 52,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 20 11,504 36 52,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 21 1,504 36 52,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 21 1,32,107 25,805 165 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,655 1,	Makamee	17,007	7.0	1,340	1 020	00.0	1,146	202	2000	216	1	077	104	011
Then 5,447 34 471 375 18 402 134 134 94   The first and 4,153 34 371 407 718 402 134 144 75 40 71  Counties 315,093 2,446 29,902 22,056 2,107 25,577 15,385 11,801 6,665 265 1,938 10,   SOUTHEASTERN INIT	wabaunsee	17,097	200	1,/34	1,030	0,5	939	194	454	310	1	30	740	811
F,884 36 529,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 27,885 315,993 2,446 29,902 22,050 2,107 25,577 15,385 11,801 6,665 265 1,938 10, 27,885 36 528 119 111 276 150 86 105 180 66 11,938 21 13,210 56 777 269 141 276 150 86 105 180 676 5 645 13,210 56 777 269 141 278 274 157 180 676 5 645 13,210 13 13,210 13 13,210 13 13,210 13 13,210 13 14,83 11,173 34,60 2,173 14,39 548 110 1,047 516 51 14,83 14,95 548 110 1,047 516 539 1,018 388 217 220 398 56 11,056 11,048 110 1,047 516 539 1,018 388 217 220 398 56 11,018 11,047 516 539 1,018 388 217 220 398 56 11,018 11,010 1,047 516 539 1,018 388 217 220 398 56 11,019 11 1,047 516 539 1,018 388 217 220 398 56 11,019 11 1,047 516 539 1,018 388 217 220 398 56 11,019 11 1,02 1,240 265 341 541 123 448 31 13,017 102 1,240 265 341 541 123 448 31 13,017 102 1,240 265 341 541 123 448 31 13,017 102 1,240 265 341 541 123 448 31 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,017 103 13,01	Washington	5,949	34	371	3/5	18	6,52	134	134	75	40	71	453 125	3/0
5,884         36         528         119         111         276         150         86         105         180         6           1         22,58         76         183         2,518         2,665         1,635         741         684         105         180         6           1         22,505         165         1,078         1,834         2,518         2,665         1,635         741         684         180         212           6,451         36         1,67         110         53         2,518         2,666         1,635         741         624         386         212           6,451         33         667         110         53         2,52         141         82         133         21         56         66         2,140         676         16         67         67         140         56         141         56         141         56         141         56         141         56         141         56         141         56         141         56         141         56         271         140         56         271         141         82         141         462         348         15         462	All counties	315,093	2,446	29,902		2.107		2	1 '	6.665	265	1.938	10.459	13.845
5,884         36         528         119         SUUTRANCE IN INTITION TO THE ALL STATES IN INTITION TO THE ALL STATES IN INTITION TO THE ALL STATES IN			,		n!	CONTINEAC	`  =							
7,884         36         528         119         111         276         150         86         105         180         6           n         22,505         165         177         262         392         519         274         157         180         6           13,210         56         165         1,078         1,834         2,518         2,665         1,635         741         68         130         28         21           13,210         56         165         1,078         1,834         2,518         2,665         1,635         207         180         676         5           13,210         56         248         1,674         1,73         3,450         2,173         1,439         648         456         1,140         676         5           10,615         113         66         218         1,033         277         248         456         1,140         66         13         67         14,05         14,140         66         201         14         65         241         19           11,064         110         1,044         427         330         1,018         38         217         228         1,1						SOUTHEAS	= [							
7,855 76 597 262 392 519 274 157 130 283 21 22,256 1,655 1,655 1,655 1,635 741 624 386 212 21,210 56 777 1,834 2,518 2,665 1,635 771 624 386 212 21,210 56 777 110 53 262 141 82 133 151 5 6 6 24 386 212 21,210 56 77 110 1,042 21,173 1,439 548 456 1,140 56 24 113 662 30 277 248 75 277 173 1,439 662 30 277 248 75 277 173 1,439 662 30 277 248 75 277 265 241 13 11,047 216 218 30 277 248 75 272 20 398 56 21 11,045 11,047 516 539 1,018 388 217 220 398 56 21 11,056 11,106 11,047 516 519 1,018 388 217 220 398 56 21 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 11,056 1	Allen	5,884	36	523	119	111	276	150	36	105	180	9	351	709
22,505 165 1,078 1,834 2,518 2,665 1,635 741 624 386 212 13,210 56 777 269 141 84 350 207 180 676 5 14,132 66 74 110 52 1,433 545 170 173 662 30 10,615 113 511 437 1,033 743 595 170 173 662 30 17,148 42 390 2,177 248 75 65 241 19 18,015 67 1,148 427 390 2,77 248 75 65 241 19 18,015 13,017 102 1,240 265 341 640 435 220 398 56 13,017 102 1,240 265 341 640 435 220 257 651 45 13,017 102 1,240 265 341 640 173 362 153 623 14 13,017 102 1,240 265 341 640 779 860 645 351 45 13,017 102 1,240 265 341 640 141 122 448 31 14,551 176 699 210 103 405 188 204 148 109 11 14,574 70 327 302 755 491 393 123 17 387 18 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113	Anderson	7,855	9/	265	292		519	274	157	130	283	21	376	829
13,210   56   777   269   141   584   350   207   180   676   5     13,210   56   777   269   141   584   350   207   180   676   5     2,615   13   667   110   53   252   141   82   133   151   5     4,132   66   218   1,173   3,450   2,77   248   75   65   1,140   30     17,562   67   1,148   427   330   954   406   435   2,72   502   13   1, 13     13,088   110   1,047   516   539   1,018   388   217   220   398   56     13,088   110   1,047   265   341   352   153   223   412   13     13,017   102   1,240   265   341   362   153   223   412   13     13,017   102   1,240   265   341   362   153   223   412   13     13,019   308   2,022   2,369   1,882   3,385   1,946   779   860   645   355   1,	Bourbon	22,505	165	1,078	1,834		2,665	1,635	741	624	386	212	572	1,776
6,451         33         667         110         53         252         141         82         133         151         5           ee         10,615         113         1,173         3,450         2,173         1,439         648         456         1,140         56           ee         10,615         113         511         437         1,033         277         248         75         65         241         19           ee         4,132         66         218         193         277         248         75         65         241         19           d         13,088         110         1,047         516         539         1,018         388         217         220         502         13         1,01           od         13,017         10,2         1,246         539         1,018         388         217         220         502         13         1,01           od         13,017         10,2         1,246         363         3,41         541         45         45         45         448         31           s, 04         13,017         10,2         1,240         265         31,38         1,46	Butler	13,210	99	777	569	141	584	350	207	130	919	2	863	2,132
Fig. 13,805 248 1,088 1,173 3,450 2,173 1,439 548 456 1,140 56 1,140 56 1,140 56 1,140 56 1,140 56 1,140 56 1,140 56 1,140 56 1,140 51 1,141 51 1,148 427 1,033 743 595 170 173 662 30 241 198 390 277 248 75 65 241 199 1,148 427 330 954 406 435 272 502 13 1,148 427 1,148 427 1,148 217 220 398 56 1,140 54 131 645 634 1,332 1,278 731 325 257 651 45 1,140 1,047 516 341 341 352 1,278 731 325 257 651 45 1,149 1,047 265 341 341 362 153 223 4412 13 1,149 1,047 265 341 341 362 153 223 4412 13 1,149 1,049 1,149 1,040 1,149 1,040 1,149 1,040 1,149 1,040 1,149 1,040 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,149 1,14	Chase	6,451	33	299	110		252	141	85	133	151	2	425	292
e 10,615 113 511 437 1,033 743 595 170 173 662 30 4,132 66 218 198 390 277 248 75 65 241 19 17,562 67 1,148 427 330 954 406 435 272 502 13 1, 17,562 67 1,148 427 330 954 406 435 272 502 13 1, 17,562 67 1,148 427 330 277 248 75 65 241 19 14,054 131 645 645 644 1,332 1,278 731 325 257 651 45 14,054 131 645 645 644 1,332 1,278 731 325 223 412 13 13,017 102 1,240 265 341 541 362 153 223 412 13 13,017 102 1,240 265 341 541 362 153 223 412 13 13,019 3 308 2,022 2,369 1,882 3,385 1,946 779 860 645 355 1, 18,015 24 699 210 103 405 183 204 148 109 11 14,53 23 23 238 126 158 292 124 111 62 213 3 13,509 176 959 932 863 1,289 710 361 290 319 136 15,74 70 327 302 755 491 393 123 117 387 118 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113	Chautauqua	23,805	248	1,088	1,173	- 6	2,173	1,439	548	456	1,140	99	802	2,432
4,132         66         218         198         390         277         248         75         65         241         19           17,562         67         1,148         427         330         954         406         435         272         502         13         1,14           13,064         110         1,047         516         539         1,278         731         220         398         56           13,017         102         1,047         516         539         1,278         731         220         297         651         45           50d         13,017         102         1,240         265         341         361         450         123         412         13           50d         13,017         102         1,240         265         341         363         450         143         113           60d         13,017         30         20         1,27         40         406         448         11           8,015         24         699         210         1,882         3,385         1,946         779         860         642         213         3           8,015         24	Cherokee	10,615	113	511	437	1,033	743	565	170	173	662	30	399	1,289
y 17,562 67 1,148 427 330 954 406 435 272 502 13 1, ord 13,088 110 1,047 516 519 1,018 388 217 220 398 56 14,054 131 1,047 516 519 1,018 388 217 220 398 56 51 14,054 131 1,047 265 341 1,278 731 325 257 651 45 13 13 14,054 102 1,240 265 341 541 352 153 223 412 13 13 13 13 13 13 13 13 13 13 13 13 13	Coffey	4,132	99	218	198	390	277	248	75	9	241	19	112	369
ord 13,088 119 1,047 516 539 1,018 388 217 220 398 56 14,054 131 645 634 1,332 1,278 731 325 257 651 45 45 13,017 102 1,240 265 341 541 352 153 223 412 13 448 31 30,017 102 1,240 265 341 541 352 153 223 442 13 13 448 31 30,017 102 1,240 265 1,882 3,385 1,946 779 860 6445 355 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,000 645 35 1,	Cowley	17,562	29	1,148	427	330		406	435	272	505	13	1,150	2,392
14,054     131     645     634     1,332     1,278     731     325     257     651     45       13,017     102     1,240     265     341     541     352     153     223     412     13       13,017     102     1,240     265     341     541     352     153     223     412     13       14     102     1,240     265     341     460     141     123     448     31       13,017     202     2,022     2,369     1,882     3,385     1,946     779     860     645     355     1,       10     4,533     23     238     1,28     1,28     710     148     109     11       13,509     176     959     932     863     1,289     710     361     290     319     136       10     6,724     70     327     302     755     491     393     123     117     387     118       10     15,578     103     302     266     587     392     170     672     190     672     190     100       10     115     249     1,067     672     108     710     93     20	Crawford	13,088	110	1,047	516	539	•	388	217	220	398	99	630	1,490
Namod 13,017 $102$ 1,240 $265$ 341 541 352 153 223 412 13 15 13 13017 $102$ 1,240 $265$ 341 541 352 153 123 442 13 15 15 36 364 363 803 535 1,946 779 860 645 355 1,     8,015 24 699 210 103 405 183 204 148 109 11     8,015 24 699 210 158 292 124 111 62 213 3     90mery 13,509 176 959 932 863 1,289 710 361 290 319 136     8,000 6,724 70 327 302 755 491 393 123 117 387 118     15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113     5,549 78 285 266 587 337 102 672 102 0 572 110 10     15,578 103 801 1,111 1,849 1,698 1,106 75 102 0 572 110 10     15,578 103 801 1,111 1,849 1,698 1,106 75 102 0 572 110 10     15,578 103 801 1,111 1,849 1,698 1,106 75 102 0 572 110 10     15,578 103 801 1,111 1,849 1,698 1,106 75 102 0 572 1 102 10     15,578 103 801 1,111 1,849 1,698 1,106 75 102 0 572 1 102 102 102 102 102 102 102 102 102	EJK	14,054	131	645	634	1,332	1,278	731	325	257	651	45	199	1,622
the 7,380 98 364 363 803 535 450 141 123 448 31 $31$ $31$ $31$ $31$ $31$ $31$ $31$	Greenwood	13,017	102	1,240	265	341	541	352	153	223	412	13	651	1,382
30,993 308 2,022 2,369 1,882 3,385 1,946 779 860 645 355 1,946 8015 24 699 210 103 405 183 204 148 109 11 11 12 801 13,509 176 959 932 863 1,289 710 361 290 319 136 15,74 70 327 302 755 491 393 123 117 387 18 103 801 1,111 1,849 1,698 1,106 462 419 374 113 300 5,549 78 218 374 113 300 5,549 78 285 266 5,578 1,006 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,007 5,0	Labette	7,380	86	364	363	803		450	141	123	448	31	245	
8,015         24         699         210         103         405         183         204         148         109         11           n         4,533         23         238         126         158         292         124         111         62         213         3           s         4,669         29         405         143         117         284         92         108         78         81         12           io         6,724         70         327         302         755         491         393         123         117         387         18           in         15,578         103         801         1,111         1,849         1,698         1,106         462         419         374         113           s,on         5,549         78         286         587         392         377         102         672         100         672         100         672         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	Linn	30,093	308	2,022	2,369		3,385	1,946	779	860	645	355	1,027	2,713
4,533         23         238         126         158         292         124         111         62         213         3           13,509         176         959         932         863         1,289         710         361         290         319         136           4,669         29         405         117         284         92         108         78         81         12           6,724         70         327         302         755         491         393         123         117         387         18           15,578         103         801         1,111         1,849         1,698         1,106         462         419         374         113           5,549         78         285         266         587         392         377         102         672         102         672         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102         102 </td <td>Lyon</td> <td>8,015</td> <td>24</td> <td>669</td> <td>210</td> <td>103</td> <td>405</td> <td>183</td> <td>204</td> <td>143</td> <td>109</td> <td>Ξ°</td> <td>507</td> <td>964</td>	Lyon	8,015	24	669	210	103	405	183	204	143	109	Ξ°	507	964
13,509         176         959         932         863         1,289         710         361         290         319         136           4,669         29         405         143         117         284         92         108         78         81         12           6,724         70         327         302         755         491         393         123         117         387         18           15,578         103         801         1,111         1,849         1,698         1,106         462         419         374         113           5,549         78         285         266         587         337         102         93         320         22	Marion	4,533	23	238	126	158	262	124	111	29	213	n	269	099
4,669 29 405 143 117 284 92 108 78 81 12 12 6,724 70 327 302 755 491 393 123 117 387 18 18 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 5,549 78 285 286 587 392 337 102 93 320 22	Montgomery	13,509	176	656	932	863	1,289	710	361	290	313	136	487	1,196
6,724 70 327 302 755 491 393 123 117 387 18 15,578 103 801 1,111 1,849 1,698 1,106 462 419 374 113 55,549 78 285 566 587 392 337 102 93 320 22	Morris	4,669	29	405	143	117	284	26	108	0 1	81	12	576	531
15,578 103 801 1,111 1,849 1,698 1,106 462 419 3/4 113	Jeosho	6,724	0/	327	302	46/	491	393	123	11/	38/	87	233	750
5,549 /8 285 266 587 392 33/ 102 43 320 22	Wilson	15,578	103	801	1,111	1,849	1,698		462	419	374	113	449	1,394
01 001 1 002 0 000 0 1 001 0 000 0 110 00 110 00 110 00 0	(loodson	5,549	χ/	285	266	- 1		33/	701		- 1	27	-1	ΩΙ
244,168 2,112 13,044 13,071 17,747 20,251 12,000 5,387 5,028 6,378 1,162 10,	All counties	249,128	2,112	15,644	12,071	17,747	20,251	12,060	5,587	5,028	8,578	1,182	10,552	26,734

(Table 44 continued)

County

Atchison

Doniphan

Douglas

Franklin

Jackson Jefferson

Johnson Leavenworth

Marshall

Miami

Geary

Brown

Clay Dickinson Cotton-

wood

1,792

2,301

2,061

1,307

1,016

1,790

2,022 2,910 1,326

6,126

2,060

2,347

967

517

Bass-

wood

299

168

219

211

344

206

180

170

132

295

341

326

300

560

963

2,517

			Species	group			
		Black					Other
	Elm	walnut	Willow	Boxelder	Hackberry	Sycamore	hardwoods
	529	1,430	151	133	2,112	614	755
	345	1,075	90	130	1,177	420	576
	381	956	175	100	1,745	481	563
	348	864	194	95	1,509	473	444
	533	1,568	222	165	1,740	446	855
	809	1,430	318	128	1,111	444	856
	626	1,383	159	132	1,091	319	846
	447	1,164	115	69	1,333	363	664
	637	1,298	205	334	1,447	133	1,275
1,	238	2,453	332	164	1,788	900	1,378
	545	1,418	175	173	1,924	584	757
1,	468	2,924	169	127	1,994	1,232	1,652
	650	1,335	396	221	1,812	485	891

318

3,476

Miami	2,34/	560	963	2,51/	252	318	3,476	9/2	1,414
Nemaha	1,123	69	310	708	97	195	774	60	692
Osage	2,446	268	737	1,780	423	181	2,158	712	982
Pottawatomie	2,993	440	941	2,167	673	262	3,085	381	1,245
Riley	2,292	344	699	1,693	287	187	2,149	615	1,028
Shawnee	1,896	284	517	1,357	260	179	1,862	458	886
Wabaunsee	3,296	273	751	1,725	231	157	2,274	621	1,068
Washington	871	49	318	629	62	88	619	95	494
Wyandotte	102	140	140	492	35	25	460	139	184
All counties	43,561	5,618	13,932	32,366	5,021	3,563	37,640	11,447	19,505
				SOUTHEASTE	RN UNIT				
Allen	347	4	263	530	134	54	1,334	259	302
Anderson	392	8	394	731	148	65	1,491 .	302	408
Bourbon	440	59	1,089	2,022	129	165	2,682	794	919
Butler	701	7	775	1,197	401	107	2,297	709	676
Chase	377	3	233	527	142	56	1,659	296	341
Chautauqua	563	64	1,358	2,240	359	104	2,221	774	1,114
Cherokee	540	25	648	1,115	265	42	1,033	348	444
Coffey	264	12	252	492	93	20	445	103	173
Cowley	617	8	973	1,517	379	219	3,797	992	964
Crawford	689	9	606	1,178	254	111	2,490	541	581
E1k	490	25	817	1,308	254	82	1,611	529	726
Greenwood	1,005	12	605	1,231	299	125	2,847	469	639
Labette	315	19	435	801	160	27	696	223	299
Linn	1,109	54	1,221	2,723	320	156	4,720	1,101	1,298
Lyon	289	4	370	658	135	122	1,998	441	431
Marion	177	3	278	397	112	44	758	236	249
Montgomery	349	19	571	1,244	141	114	2,250	532	571
Morris	183	2	208	396	80	60	1,107	238	234
Neosho	313	18	404	710	149	28	652	209	275
Wilson	322	42	753	1,368	130	105	1,784	541	654
Woodson	304	16	336	619	120	25	569	150	229
All counties	9,786	413	12,589	23,004	4,204	1,831	38,441	9,787	11,527
							(Table 44 c	ontinued of	(anen tyan n

NORTHEASTERN UNIT

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(Table 44 continued on next page)

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891 1,414

(Table 44 continued)

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					Species	group			
	Cotton-	Bass-		B1 ack	-				Other
County	wood	wood	Elm	walnut	Willow	Boxelder	Hackberry	Sycamore	hardwoods
Barber	3,560		134	73	99	186	400	5	151
Barton	360		25	18	24	42	92		28
Cheyenne	1,072		66	37	44	92	206	3	64
Clark	2,782		49	35	39	92	223		57
Cloud	4,360		273	180	132	257	676	20	275
Comanche	259		15	10	11	37	49		16
Decatur	684		51	30	41	71	164	1	54
Edwards	1,228		63	11	17	29	61		23
Ellis	878		60	43	54	90	196	1	73
Ellsworth	1,157		77	52	45	97	252	8	92
Finney	84		5		3	7	18		3
Ford	146		12	7	8	27	24		12
Gove	58		3	4	3	6	14		4
Graham	1,723		111	63	74	148	318	7	122
Grant	46			3		7	310		2
Gray	1,008		8		5	11	26		4
Greeley	20		**						
Hamilton	700		43	10	32	72	161		34
Harper	2,040		96	80	73	143	248	8	141
Harvey	516		40	7	24	54	. 76		29
Haskell									
Hodgeman				70	104				
Jewell	3,377		156	70	124	221	536	1	155
Kearny	226						20		
Kingman	3,691		168	158	108	224	329	20	270
Kiowa	135		5		3	5	19		. 3
Lane	15		2		2	2	5		1
Lincoln	1,273		72	55	51	111	218	3	81
Logan	263		21	12	15	26	56	1	25
McPherson	2,068		94	61	54	111	243	4	91
Meade ·	752		27	18	20	40	101		26
Mitchell	2,785		157	136	85	233	403	24	243
Morton	647		40	14	32	52	115		37
Ness	126		13	7	3	10	33	3	16
Norton	785		72	27	48	90	179	3	68
Osborne	2,810		155	87	91	183	436	16	185
Ottawa	2,565		154	131	99	195	427	24	247
Pawnee	774		28	13	20	47	93		27
Phillips	2,168		111	95	100	203	307	3	154
Pratt	1,075		39	18	21	38	86		28
Rawlins	637		49	31	37	66	159	3	56
Reno	2,960		137	121	89	191	290	17	220
Republic	3,743		156	60	106	180	440	1	132
Rice	1,363		39	14	100	28	57	3	30
Rooks	3,250		136	78	82	183	363	12	165
Rush	30		5	70	3	5	363 9	12	3
Russell	1,990		115	67	67	124	319	77	112

(Table 44 continued on next page)

(Table 44 continued)

MESTERN	

					Species	group			
County	Cotton- wood	Bass- wood	Elm	Black walnut	Willow	Boxelder	Hackberry	Sycamore	Other hardwoods
Saline	1,152		87	60	46	105	237	8	99
Scott	33		5	2		2	10	1	6
Sedgwick	2,615		166	140	86	206	396	31	271
Seward	850		36	34	37	66	131		49
Sheridan	564		25	19	21	35	79	1	33
Sherman									
Smith	1,187		79	39	66	112	250		77
Stafford	3,371		59	21	21	50	78		40
Stanton	10								
Stevens	177		16	7	13	21	47		15
Sumner	7,845		481	212	98	291	833	61	421
Thomas	458		3	4	3	6	14		6
Trego	456		29	21	15	45	71	4	41
Wallace	37			3		7			2
Wichita									
All counties	80,945		4,078	2,498	2,404	4,982	10,593	304	4,619
All units	134,292	6,031	30,599	57,868	11,629	10,376	86,674	21,538	35,651

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> + 4000	All	Eastern	Bur	Select white pak	Other white oak	Select red oak	Other red pak	Select	Other	Pecan	Hard	Soft	Ach
ant cy	3000103	- Carcada	480	ADC 22 LIN	200	450	480	5000	5040	200	2	2	100
Barber	5,798	;	558	1	;	1	†	ŧ	í	ى م	1	8 9	179
Barton	855	;	114	1 3	!	!	;	* 2	1	2	1	!	150
Cheyenne	2,113	1	252	;	†	1 1	1	1	!	+	!	1	253
Clark	4,229	1	149	!	;	1	*	,	1	m	1	1	800
Cloud	7,899	;	1,037	;	;	;	;	;	:	13	;	1	9/9
Comanche	899	1 1	51	1	,	;	•	1	8 6	1	1	1	220
Decatur	1,530	1	223	1	;	;	;	1	;	n	;	7	208
Edwards	1,617	1	81	1	;	;	;	1	,		î	1	103
Ellis	1,928	;	251	;	;	;	1	1	;	4	;	1 7	258
Fllsworth	2,442		374	1	;	;	,	1 1	;	4	1	1	284
Finney	208	1	14	!		;	;	1		1	1	7	77
rinney	201	1	- VC										111
ord	301		7 7	!	;	•	1	-	,	1	1	,	7 7 7
Gove	071	t I	1/	1	1	;	;	1	•	! !	1	1	1
Graham	3,525	3 8	459	1	;	;	;	:	t 1	5	1	1	495
Grant	85	t 1	;	;	;	1	;	:	;	1	ŧ	•	27
Gray	1,218	;	21	;	;	;	;	;	;	1	1	1	135
Greeley	20	1	ŧ	;	;	•	;	;	;	*	-	9	1
Hamilton	1,941	Q	135	1	;	1	;	;	;	Н	:	:	747
Harper	3,860	;	352	;	;	;	;	1	1	n	!	;	919
Harvey	1,095	1	108	1	;	;	;	,	;	,	•	1	241
Haskel1	:	;	;	;	;	ŧ,	;	1	•	1	1	;	;
Hodgeman	:	;	1	;	;	-	1	1	1	;	1	*	-
Jewell	6,180	;	545	;	1	;	;	!	;	5	!	;	066
Kearny	253	:	;	!	,	;	;	;	;	1	1	;	7
Kingman	. 6,627	1 9	222	;	1	;	;	;	;	က	;	7	1,099
Kiowa	216	9	13	1	;	;	;	;	;	,	;	;	27
Lane	46	;	7	}	:	;	;	;	1	;	1	,	12
Lincoln	2,458	;	285	;	1	* *	;	;	;	4	;	;	305
ogan	609	9	85	!	;	;	;	1	;	-1	;	t 1	98
McPherson	3,343	;	327	1	1	1	7	-	-	2	!	1	285
Meade	1,351	;	82	1	;	•	;	;	;	2	;	;	283
Mitchell	5,774	1 1	718	1	;	;	;	;	;	4	!	,	986
Morton	1,330	2	124	;	;	;	j	;	;		!	1	263
Ness	323	!	89	1	1	1	;	1	1	!	,	;	44
Norton	1,896	!	598	;	;	;	;	1	1	2	!	1	352
Osborne .	5,340	!	714	;	;	!	1	1	1	9	1	;	927
Ottawa	5,508	!	732	1	;	;	1	1	-	rv.	1	1	929
Pawnee	1,281	!	93	;	;	1	1	!	1	-	;	;	185
Phillips	4,309	!	399	:	1	1	*	8 5	!	2	:	ţ	764
Pratt	1,540	!	103	ļ	;	;	1	9	!	2	!	,	130
Rawlins	1,464	;	228	;	;	;	;	ì	;	က	1	1	195
Reno	5,517	;	512	;	;	-	!	;	1	C1	*	1	978
Republic	6,082	;	498	!	;	;	;	!	1	5	!	1	751
Rice	1,749	;	66	;	;	1	!	!	1	1	!	!	105
Rooks	5,653	1	553	1	1	i	!	;	!	4	;	!	827
Rush	91	1	13	-	;	;	;	;	;	;	ŧ	1	23
Disconti	2 500		151			1		1	1	4			340

(Table 44 continued)

All Eastern Bur Select Other Select Species redcedar oak white oak white oak red oak r						NESTEI	WESTERN UNIT							
Species redcedar oak white oak white oak red o							Spe	scies group						
2,507 379	County	A11	Eastern	Bur oak	Select white oak	Other white oak	Select red oak	Other red oak	Select	Other hickorv	Pecan	Hard	Soft	Ash
2,687 26	Saline	2,507	:	379	:	:			1		:			334
2,5687 785 138 138 138 138 138 138	Scott '	102	1	26	;	;	1	1	1	*	1	;	;	17
1,565 138 138 997 113 138 138 1315 1315 1315 1315 150 150	Sedgwick	5,687	;	785	;	;	;	•	1	*	44	ţ	*	947
2,513 113	Seward	1,565	!	138	1	;	;	1	1	1	1	i	9	224
2,513 315 315 33,904 10 101	Sheridan	166	:	113	1	;	;	1	•	1	!	;	î	107
2,513 315	Sherman	1	;	;	;	,	1	;	1	-		1	i	1
13,904 10 101	Smith	2,513	ł	315	1	;	;	1		;	1	;	ţ	388
13,787 1,596	Stafford	3,904	10	101	;	1.	;	1	;	}	ŧ	;	;	153
13,787 1,596	Stanton.	10	1	!	1	;	;	;	;	. !	1	;	1	-
13,787 1,596 1,596 1,044 121 121	Stevens	425	!	61	;	1	1	*	ţ	;	1	1	1	69
1,044 121 7.7 7.1 3.3 15,374	Summer	13,787	1	1,596	!	;	;	!	*	*	66	ł	;	1,850
1,044 121 76	Thomas	525	1	17	1	1	;	1	;	*	;	;	1	111
ounties 147,094 33 15,374	Trego	1,044	1	121	!	;	;	1	,	1	9	į	1	241
ounties 147,094 33 15,374	Wallace	9/	1	;	;	1	,	,	;	;	1	1	1	27
ounties 147,094 33 15,374 711 21E A E01 E0 600 24 121 10 0EA AE 020	Wichita	1	;	1	;	;	;	!	;	;	1	1	1	
711 315 / 601 60 020 2/ 121 10 05/ / / 600	All counties	147,094	33	15,374	1	1	1	;	;	;	143	1	1	21,121
(II, 313 4, 391 00, 320 34, 121 14, 034 43, 020	All units	711,315	4,591	60,920	34,121	19,854	45,828	27,445	17,388	11,693	8,986	3,120	21,011	61,700

(Table 44 continued on next page)

(In thousand board feet) $\frac{1}{2}$ 

NORTHEASTERN UNIT

	Δch	2 252	•	1,610	1,242	1,882	515	1,076	1,315	2,978	1,541	2,033	3,276	1,939	4,267	1,473	2,002	2,394	1,856	2,320	2,565	1,535	447	42,154		2 344	2,547	5 348	7,694	2,512	7,863	4,260	1,080	8,511	4,666	5,507	4,171	2,606	8,340	3,303	2,352	3,686	1,731	2,412	4,392	~1		next page)
	Soft	1 A63	759	1.472	1,087	1,833	1,455	1,817	1,446	3,744	2,506	1,715	4,046	2,237	3,393	1,626	2,018	2,538	1,940	1,933	2,649	2,285	505	44,464		1 596	1,530	1 998	3,578	2,034	3.066	1,500	388	4.610	2,797	2,154	2,976	920	4,601	2,128	1,048	2,067	1,192	368	1,683	- 1		00
	Hard	A17	381	2 20	114	351	;	!	14	4	1	376	1	194	738	;	112	204	180	241	99	1	162	3,635		16	7 7	440		1 =	153	83	52	33	115	104	34	88	741	24	7	303	24	25	236			45 continued
	Decan		: :	;	1	1	!	184	1	;	1	1 3	161	:	138	1	1	1	1	1	1	!	92	575		573	806	1 433	1 648	504	3.158	2,013	896	1,349	1,234	1,562	1,501	1,455	2,443	368	497	1,311	283	1,211	1,148	19167		(Table
	Other hickory	861	748	343	492	1,029	299	508	428	82	1,015	735	1,027	503	1,508	17	642	971	730	926	514	114	590	14,453		307	343	937	384	419	737	322	153	602	265	400	703	235	1,684	364	114	634	222	217	625	- 1	10,196	
	Select	1 106	1,130	489	554	1,382	1,467	1,133	687	405	2,127	1,227	1,838	955	2,243	198	1,256	1,686	1,290	1,095	901	236	579	24,060		328	575	2 413	205	265	1.537	468	202	2,083	753	1,066	471	398	2,409	923	428	1,327	441	317	1,408	- 1	18,987	
Species group	Other red oak		2,541	907	859	2,704	6,583	4,534	2,238	956	9,657	2,376	9,004	1,532	4,383	509	3,717	5,365	3,327	1,612	2,678	929	1,061	70,133		633	1	7 405	1 380	711	3 804	1,708	768	1,605	1,734	2,539	1,526	1,282	10,506	616	406	3,312	413	1,102	4,691	- 1	48,532	
Spe	Select red pak	- 1	5,619	2,107	2,929	6,603	5,120	4,205	2,373	2,659	7,190	5,781	7,288	4,300	10,300	1,453	4,948	6,792	5,651	4,536	3,554	1,740	2,903	104,284	ERN UNIT		2,042	10,508	2 578	911	8 925	3,006	1,114	3,509	3,925	5,170	2,550	2,145	12,957	1,461	1,113	4,805	1,035	1,999	6,802	-	79,173	
	Other white cak		227	64	52	251	629	439	177	229	786	329	418	128	362	141	329	481	292	130	208	09	167	6,145	SOUTHEAST	152	514	A 524	204	122	5 223	1,572	627	561	961	2,117	418	1,234	4,319	220	241	1,877	241	1,129	3,127	213	30,386	
	Select		4,734	1,806	1,524	3,694	2,890	2,634	2,523	1,928	5,037	4,305	6,143	5,969	8,514	980	4,320	5,317	3,953	3,476	3,715	1,239	1,112	77,476		362	752	A 255	758	345	3 105	1,184	556	1,120	1,182	1,669	386	976	5,203	564	360	2,014	357	830	2,699	- 1	20,907	
	Bur	6 083	3,781	4.730	3,752	6,220	3,111	3,949	4,473	5,918	5,903	6,286	9,657	6,316	11,131	2,941	6,721	8,642	7,011	5,842	7,414	3,039	1,370	124,290		2 647	2,047	7 404	4,404	3 390	4 452	2,188	901	5.837	5,111	2,379	6,025	1,531	9,424	3,492	1,188	4,488	2,024	1,361	3,327	1,1,0	72,739	
	Eastern	366	296	118	132	295	268	214	108	185	276	290	172	205	260	75	268	340	316	509	181	95	78	5,106		00	270	306	105	63	624	362	226	145	279	309	261	341	872	39	64	572	68	223	208	007	5,765	
	All	575 E73	36,117	39,325	35,993	49,986	42,640	38,529	36,690	43,704	74,959	49,515	102,048	48,596	90,212	23,062	59,394	78,642	58,691	48,657	60,783	20,775	14,722	1,107,613		21 733	27,730	71,530	46,894	24 968	67 063	31,617	12,314	63,884	46,381	43,253	46,996	21,649	108,858	30,369	15,386	46,711	17,333	19,672	43,604	/10,01	828,546	
	County	A+chicor	Bround Bround	Clav	Dickinson	Doniphan	Douglas	Franklin	Geary	Jackson	Jefferson	Johnson	Leavenworth	Marshall	Miami	Nemaha	Osage	Pottawatomie	Rilev	Shawnee	Wahaunsee	Washington	Wandotte	All counties		nolla	And on the contract of the con	Bourbon	814105	Chace	Chautairdia	Charokee	Coffee	Cowley	Crawford	EIK	Greenwood	Labette	Linn	Lyon	Marion	Montgomery	Morris	∜eosho	Wilson	MODIFICA	All counties	

1/International 1/4-inch rule.

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				IORTHEASTE	Species	group			
	Cotton-	Bass-		Black					Other
ounty	wood	wood	Elm	walnut	Willow	Boxelder	Hackberry	Sycamore	hardwood:
Atchison	8,305	1,335	1,073	4,589	510	129	6,462	2,993	2,159
Brown	2,220	708	592	3,191	395	160	3,475	2,047	1,762
Clay	10,634	1,048	838	3,097	568	124	5,475	2,264	1,550
Dickinson	9,590	986	755	2,930	713	64	4,716	2,183	1,319
Doniphan	5,429	1,536	1,000	5,042	622	269	5,271	2,130	2,443
Douglas	4,079	850	1,519	3,784	1,535	177	3,242	2,333	2,416
Franklin	4.187	738	1,125	3,725	748	262	3,174	1,674	2,203
Geary	7,606	717	905	3,527	407	112	4,036	1,780	1,818
Jackson	9,697	662	940	3,475	904	900	4,132	730	3,176
Jefferson	13,421	1,140	2,174	6,745	1,530	269	5,049	4,673	3,920
Johnson	5,521	1.579	1.185	4,368	499	174	5,960	2,643	2,133
Leavenworth	29,964	1,152	2,003	8,475	612	258	5,490	6,509	4,555
Marshall	8,787	1,409	1,135	4,078	1,240	311	5,486	2,309	2,563
Miami	10,034	2,567	1,742	7,787	813	377	10,601	4,735	4,019
Nemaha	5,519	362	512	1.893	472	549	2,280	326	1,736
Osage	10,789	1,164	1,521	5,255	1,646	307	6,399	3,382	2,598
Pottawatomie	13,621	1,999	1,929	6,478	2,506	415	9,320	4,270	3,315
		1,541	1,304		1,165	251	6,633	2,956	,
Riley	10,314	,		5,157					2,824
Shawnee	8,034	1,299	969	4,207	969	299	5,732	2,197	2,631
Wabaunsee	14,466	1,211	1,537	5,214	798	285	6,916	3,039	2,872
Washington	3,657	190	374	1,729	293	210	1,614	535	1,204
Wyandotte	229	614	375	1,780	120	22	1,351	560	608
All counties	196,103	24,807	25,507	96,526	19,065	5,924	112,814	56,268	53,824
411	1 241			OUTHEASTE		154	F 200	1 262	726
Allen	1,341	2	671	1,702	488		5,200	1,362	
Anderson	1,522	12	934	2,105	547	. 202	5,656	1,556	868
Bourbon	1,935	216	2,500	5,887	525	619	9,119	3,674	2,913
Butler	2,854	1	1,822	3,558	1,661	362	8,109	3,475	1,786
Chase	1,457	1	625	1,875	512	135	6,649	1,590	837
Chautauqua	2,431	36	2,892	5,139	1,560	348	6,307	3,451	2,252
Cherokee	2,096	15	1,453	2,755	1,028	137	3,009	1,512	946
Coffey	954	9	615	1,213	303	67	1,405	452	333
Cowley	2,551	8	2,628	4,781	1,581	778	13,720	5,130	2,741
Crawford	2,697	21	1,405	3,774	934	346	9,595	2,763	1,492
E1k	2,059	46	1,733	3,235	1,073	291	5,207	2,447	1,586
Greenwood	3,741	5	1,519	3,782	930	368	11,252	2,486	1,391
Labette	1,232	16	987	1,918	637	87	1,975	973	613
Linn	4,558	318	2,667	8,671	1,235	449	18,265	5,260	3,936
Lyon	1,187	12	1,070	2,231	531	427	7,488	2,360	1,258
Marion	736	1	662	1,158	472	161	2,591	1,166	621
Montgomery	1,484	90	1,411	3,793	590	393	8,224	2,683	1,647
Morris	729	1	579	1,346	302	201	4,215	1,271	658
Neosho	1,208	9	915	1,762	571	90	1,900	910	586
Wilson	1,461	126	1,654	3,807	566	379	5,903	2,474	1,888
								,	
Woodson	1,125	11	795	1,500	421	83	1,724	658	458

(Table 45 continued on next page)

County Barber Barton Cheyenne Clark	All species	Eastern	Bur	Select	Other	Select	0ther	Select	Other	Pecan	Hard	Soft	
Barber Barton Cheyenne Clark Cloud		reacedar	oak	white oak	white oak	red oak	red oak	hickory	hickory	:500	Mayic	mable	Ash
Barton Cheyenne Clark Cloud	24,452	;	3,286	1	1	1	;	1	:	32	1	:	2.098
Cheyenne Clark Cloud	3,612	;	682	1	;	;	,	;	1	10	;	;	384
Clark	9,498	;	1,546	1	;	;	1	;	;	19	;	;	926
Cloud	16,084	;	894	}	1	;	;	,	;	14	1	;	862
	35,873	;	6,038	}	1	1	1	9	!	73	1	;	2,585
Comanche	2,345	;	301	;	-	;	!	;	1 1	2	1	!	432
Decatur	6,697	;	1,325	1	;	}	;	;	1	15	!	!	731
Edwards	7,705	;	485	;	;	;	1	;	;	4	1	1	344
Ellis	8,435	;	1,554	;	;	1	;	;	;	20	!	t	870
Ellsworth	11,318	!	2,171	1	•	1	-	;	1	23	i i	1	1,050
Finney	644	;	81	1	;	;	;	;	1	1	1	;	101
Ford	1,432	;	199	1	;	7	;	1		1	,	1	342
Gove	299	;	102	1	;	;	;	;	1	61	;	;	40
Graham	15,340	;	2,689	}	;	;	;	;	1	25	!	!	1,652
Grant	331	;	1	;	;	,	;	;	;	ţ	1	1	77
Grav	4.729	8	121	1	;	1	;	,	1 1	1	1	,	165
Graelev	64	;		;	;	;	;	;	;	;	*	7	) † )
Hamilton	5 828	i	799		,	1	;	;	;	A	1	;	000
2000	16,007		2 025	!	1	1		1		16			1 450
пагрег	40,007	;	643	:		1		;		O.T.	1	;	750
וביוסור	4,100	;	7+6					;					00/
Haskell	;	;	1	,	;	1,		,	•	1	1	;	,
ноадешал	1 0	;	1 0	1	;	1	;	;	1	1 0	;	!	1 1
Jewell	25,0/9	:	3,234	1	;	1	!	1 1	1	52	1	;	2,550
Kearny	1,100	;	1	;	;	;	;	,	;	1 :	;	;	
Kingman	27,329	1	3,139	1	!	1	1 7	1		16	!	1	2,410
Kiowa	850	;	79	1	1	1	9	1	\$	-	-	;	7.4
Lane	165	;	39	1	;	1 1		,	1	1	1	!	37
Lincoln	11,431	;	1,691	1	*	1	:	-	1	23	1	1	1,031
Logan	2,568	;	497	1	3	8	;	!	1	4	1	1	306
McPherson	16,126	!	1,932	1	;	;		1	1	27	}	;	968
Meade	5,470	1	496	1		;	;	!	;	00 (	1	1	
Mitchell	25,036		4,064	-	;	;	!	;	1	23	1	;	2,83/
Morton	5,124	1	736	1	1	!	!	;	1	4	!	!	633
Ness	1,522	1	381	1	;	;	1	1 1	* *	2	;	;	1/1
Norton	7,746	;	1,556	1	1	1	ŧ	1	1	10	}	;	•
Osborne	23,265	;	4,119	1	*	1	1	;	1	33	;	;	2,272
Ottawa	23,6/9	!	4,153	1	1	1	1	;	!	/7	1	!	2,324
Pawnee	5,251	1	552	1	1	1	:	1	;	4	!	1	
Phillips	17,734	;	2,360	;	;	1	;	!	1	24	1	1	2,036
Pratt	7,282	;	618	1	;	1	1 9	-	!	10	1	1 3	317
Rawlins	6,538	:	1,343	1	;	1	1	1	!	14	1	1	669
Reno	22,418	!	2,891	1	;	ì	;	,	;	12	1	1 7	2,254
Republic	26,504	;	2,962	1	;	1	!	;	1	29	1	1	1,995
Rice	8,140	;	568	1	1	1	!	;	1	4	!	1	366
Rooks	23,394		3,188	1	1	;	;	1	;	21	1	ļ	2,240
Rush	329	:	79	!	1	1	;	1	3	1	1	;	74
Russell	17,310	;	2,649	;	;	1	1	1	ì	32	1	}	1,245

(Table 45 continued)

WESTERN UNIT

				MF211	Species	arous			
	Cotton-	Bass-		Black	Spec res	group			Other
County	wood	wood	Elm	walnut	Willow	Boxelder	Hackberry	Sycamore	hardwoods
Barber	15,259		415	192	473	386	1,827	30	454
Barton	1,719		77	40	112	102	393		93
Cheyenne	5,090		256	86	210	282	856	14	213
Clark	11,764		182	89	204	196	1,744		135
Cloud	20,618		1,111	517	628	759	2,588	114	842
Comanche	1,105		43	39	51	31	300		41
Decatur	3,156		158	69	195	174	684	8	182
Edwards	6,147		215	37	82	55	271		65
Ellis	4,165	~ ~	192	106	271	218	811	8	220
Ellsworth	5,746		284	129	216	296	1,055	45	303
Finney	258		13		14	5	161		11
Ford	638		33	31	35	13	114		27
Gove	300		10	8	16	18	56		14
Graham	7,992		377	168	368	354	1,300	37	378
	239		3//	15	300		1,300	3/	3/0
Grant	4,176		20	15	21	8	202		16
Gray									
Greeley	64		100	0.7	156		1 110		111
Hamilton	2,482		122	27	156	80	1,119	4.6	111
Harper	9,683		385	253	425	342	1,043	46	330
Harvey	1,958		105	31	113	43	365		85
Haskell									
Hodgeman			. 7.7						
Jewell	12,891		462	194	619	379	4,259	8	457
Kearny	703						397		
Kingman	17,522		732	561	684	441	1,162	114	548
Kiowa	415		13		14	5	239		11
Lane	45		6		7	3	23		5
Lincoln	6,612		258	147	249	284	884	15	237
Logan	1,218		68	32	79	56	229	7	72
McPherson	10,841		331	153	263	320	966	23	272
Meade	3,490	40 40	86	43	100	83	736		72
Mitchell	13,858		587	459	480	428	1,548	135	617
Morton	2,415		117	38	164	81	829		107
Ness	674		45	20	16	29	115	15	54
Norton	3,343		215	76	236	154	776	15	216
Osborne	12,841		510	238	446	421	1,718	88	579
Ottawa	12,643		569	407	570	429	1,778	134	645
Pawnee	2,997		77	46	93	59	788		74
Phillips	10,058		384	301	540	374	1,279	15	363
Pratt	5,532		121	41	101	100	357		85
Rawlins	3,059		157	73	176	169	648	15	185
Reno	13,769		525	431	539	290	1,132	97	478
Republic	16,771		495	144	511	367	2,812	8	410
*			122	44	47	52	218	15	79
Rice	6,625					362	1,538	67	461
Rooks	14,395		465	239	413	362 5		0/	11
Rush	88		13	150	14		45	37	367
Russell	10,372		374	159	319	342	1,414	3/	30/

(Table 45 continued on next page)

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						ds	species group						
	LL	Eastern	Bur	Select	Other	Select	0ther	Select	0ther		Hard	Soft	
County	species	redcedar	oak	white oak	white oak white oak	red oak	red oak	hickory	hickory	Pecan	парје	maple	Ash
Saline	11,252	-	2,194	1	;	;	;	į	;	i	;	;	1,194
Scott	478	1	140	1	;	;	;	;	;	;	1	;	, 65
Sedqwick	24,861	;	4,393	1	i	1	;	;	;	236	;	;	2,724
Sewand	6,722	1	833	;	;	;	;	;	;	;	i	;	531
Sheridan	4,337	;	299	;	;	ţ	;	;	;	;	;	,	351
Sherman	1	1	;	;	;	;	;	;	;	;	†	;	;
Smith	10,516	1	1,881	;	;	;	;	;	;	;	;	;	1,182
Stafford	17,554	1	603	1	;	;	;	;	;	1	1	;	500
Stanton	33	!	Ť	;	;	;	1	1	:	;	1	;	;
Stevens	1,800	;	354	;	;	;	;	;	;	;	;	;	231
Summer	926.65	1	8,970	1	;	;	;	ţ ţ	;	.524	;	,	4,329
Thomas	2,184	1	102	;	;	†	;	;	;	;	;	*	40
Trego	4,218	1 8	643	i	:	;	;	1	;	;	!	;	594
Mallace	301	f B	;	1	. *		;	1	;	1	;	,	77
Wichita	}	1	;	;	;	;	;	!	;	;	;	;	1
All counties	630,070	1	89,091	1	•	;	:	9	:	750	1	;	56,557
All units	2,566,229 10,871	10,871	286,120	107,383	36,531	183,457	118,665	43,047	24,649	28,043	5,280	87,834	5,280 87,834 195,760

(Table 45 continued)

				HESTERN UNIT	TIMO				
					Species group	group			
	Cotton-	Bass-		Black					Other
County	роом .	роом	Elm	walnut	Willow	Boxelder	Willow Boxelder Hackberry Sycamore	Sycamore	hardwoods
Saline	5,630	;	323	177	218	246	918	46	306
Scott	186	1	18	9	1	5	30	8	20
Sedgwick	13,145	1	617	476	514	376	1,521	173	989
Seward	3,999	1	144	88	192	189	620	!	126
Sheridan	2,580	ł	82	48	105	89	317	œ	95
Sherman	;	i	;	1	;	;	;	;	;
Smith	5,156	;	235	86	314	247	1,159	1	526
Stafford	15,612	1	177	62	100	84	334	1	82
Stanton	33	!	;	;	;	;	;	;	i
Stevens	784	;	46	16	61	47	202	;	49
Sumner	37,459	;	2,006	717	491	888	2,968	342	1,282
Thomas	1,921	;	10	œ	16	18	52	1	14
Trego	2,150	i	66	78	83	54	351	23	103
Wallace	208	1	1	16	1	ŧ	1	1	•
Wichita	!	1	1	•	;	1	9	1	;
All counties	374,599	:	14,487	7,461	12,369	10,838	49,254	1,710	12,944
All units	610,060 25,763 69,531	25,763	69,531	169,979	47,901	22,839	299,581	105,631	96,304

Table 46.--Net volume of growing stock on commercial forest land by species group and diameter class, Kansas, 1981

(In thousand cubic feet)

					Dia	Diameter cla	class (inches	es at breast	ıst height	)			
	A11	5.0-	7.0-	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	6.9	6.8	10.9	12.9	14.9	16.9	18.9	20.9	22.9	28.9		39.0+
SOFTWOODS													
Eastern redcedar	4,591	1,439	1,215	477	839	324	96	9	136	1	-	1	-
Total	4,591	1,439	1,215	477	839	324	96	99	136	1	-	-	
HARDWOODS													
Bur oak	60,920	2,198	2,324	3,154	2,604	3,405	5,089	6,032	6,287	6,816	14,098	7,866	1,047
Select white oak	34,121	3,307	4,442	5,893	4,970	3,837	3,537	2,306	1,953	1,115	2,167	594	3 6
Other white oak	19,854	4,750	4,281	4,011	1,742	2,316	1,308	944	157	196	149	8	,
Select red oak	45,828	1,941	4,117	5,293	6,283	3,784	5,274	4,211	4,274	1,959	5,859	2,421	412
Other red oak	27,445	1,576	2,374	2,814	2,622	2,701	2,195	2,451	2,626	2,554	3,898	1,541	93
Select hickory	17,388	3,214	3,457	2,915	1,943	2,259	1,378	1,517	411	89	205	1	!
Other hickory	11,693	2,491	2,589	2,806	1,440	1,159	312	373	348	175	-	8 2	;
Pecan	8,986	488	1,004	1,785	1,337	973	606	473	397	751	385	484	;
Hard maple	3,120	484	928	538	459	279	49	43	66	113	1	128	;
Soft maple	21,011	485	1,432	1,263	1,223	2,418	2,280	2,252	1,912	1,684	3,312	1,555	1,195
Ash	61,700	6,832	10,408	9,328	5,756	6,807	5,240	5,475	3,276	2,333	5,709	536	1
Cottonwood	134,292	2,596	4,036	9,107	10,066	12,328	11,475	9,290	10,605	5,880	24,423	20,287	14,199
Basswood	6,031	399	392	587	1,084	1,111	692	592	292	510	179	!	116
Elm	30,599	6,595	5,638	4,192	2,243	2,720	1,645	1,437	1,242	1,284	2,577	942	84
Black walnut	57,868	8,104	6,807	10,891	9,541	8,487	6,036	3,835	1,536	1,596	574	461	1
Willow	11,629	509	882	984	1,729	1,996	1,653	1,424	1,022	553	757	;	120
Boxelder	10,376	1,836	2,027	1,495	1,890	1,081	713	771	258	222	83	1	3
Hackberry	86,674	8,452	9,246	10,782	10,624	10,137	10,498	7,995	5,698	4,246	5,800	3,196	1 8
Sycamore	21,538	213	619	634	1,129	1,190	2,530	1,695	1,580	2,268	3,750	4,139	1,791
Other hardwoods	35,651	5,167	5,521	5,180	4,759	3,970	3,527	3,153	1,672	1,215	869	618	1
Total	706,724	61,637	72,524	83,652	73,444	72,958	66,417	56,269	45,645	35,559	74,794	44,768	19,057
All species	711,315	63,076	73,739	84,129	74,283	73,282	66,513	56,334	45,781	35,559	74,794	44,768	19,057
			The second name of the second	-		-							

Table 47.--Met volume of sawtimber on commercial forest land by species group and diameter class, Kansas, 1981

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·	-	ııı cilousand	ות ההמנת וב	-(12	* * * * * * * * * * * * * * * * * * * *		1	1 1 1	
					Diameter	class (inc	thes at bre	breast height	()		
	A11	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	10.9	12.9	14.9	16.9	18.9	20.9	22.9	28.9	38.9	39.0+
SOFTWOODS Factorn reducedar	10 871	2 652	4 643	1 878	570	396	732	;	ŧ	,	,
Total	10 871	2 652	4 643	1 878	570	396	732			1 1 1	
1000	10604		200		1 1 1 1 1 1 1 1 1		1		1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	
HARDWOODS											
Bur oak	286,120	1	15,105	19,451	28,982	33,074		38,333	74,977	36,996	5,341
Select white oak	107,383	8	28,207	20,572	19,392	11,728	9,392	5,574	10,042	2,476	\$ 8
Other white oak	36,531	;	9,331	12,588	7,023	4,829	919	1,008	833	1	;
Select red oak	183,457	1	34,179	21,851	29,427	28,500	25,576	9,396	24,613	8,358	1,557
Other red oak	118,665	1	14,479	14,714	12,599	14,698	15,601	15,454	22,966	7,613	541
Select hickory	43,047	!	11,086	12,107	7,457	8,251	2,565	512	1,069		1
Other hickory	24,649	1	7,608	6,463	1,797	6,131	1,750	006	1	1	1
Pecan	28,043	1	7,187	4,722	4,398	2,471	1,885	3,412	1,565	2,403	!
Hard maple	6,280	1	2,572	1,442	399	196	479	510	1	682	;
Soft maple	87,834	;	5,149	13,036	11,635	11,876	10,378	8,203	16,775	6,305	4,477
Ash	185,760	1	29,445	36,821	29,065	30,050	17,417	11,779	29,130	2,053	9
Cottonwood	610,060	;	47,920	64,973	58,306	51,036	56,304	30,916	130, 159	106,157	64,289
Basswood	25,763	l	5,949	5,938	4,077	3,481	1,822	3,087	1,110	I I	299
Elm	69,531	I I	10,734	14,458	8,287	6,784	5,892	6,816	11,866	4,188	206
Black walnut	169,979	1	51,197	45,359	32,738	20,232	7,497	8,302	3,188	1,466	ţ
Willow	47,901	!	8,763	10,110	8,234	8,262	5,535	2,651	3,706	1	540
Boxelder	22,839	ŀ	8,390	5,347	3,667	2,896	1,257	1,065	217	1	7
Hackberry	299,581	1	60,494	52,628	54,700	40,550	29,835	22,716	27,210	11,448	1
Sycamore	105,631	1	5,564	6,357	15,469	8,786	8,967	12,463	20,119	19,769	8,137
Other hardwoods	96,304	;	22,973	19,744	16,999	15,093	8,712	5,916	4,213	2,654	!
Total	2,555,358	;	386,332	388,681	355,651	308,924	244,644	189,013	383,758	212,568	85,787
All species	2,566,229	2,652	390,975	390,559	356,221	309,320	245,376	189,013	383,758	212,568	85,787

 $\frac{1}{2}$  International 1/4-inch rule.

Table 48.--Net volume of growing stock on commercial forest land by species group and forest type, Kansas, 1981 (In thousand cubic feet)

						Forest	type				
	All	Eastern redoedar-	Oak-	Post- blackiack	Upland	Flm-ash-			Lowland	Upland elm-ash-	Non
Species	types	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
SOFTWOODS			1						1		
Eastern redcedar	4,591	2,592	617		292	86		1	215	629	152
Total	4,591	2,592	617	1	292	86	1		215	625	152
HARDWOODS											
Bur oak	60,920	171	29,078	381	3,613	4,874	;	*	22,347	393	63
Select white oak	34,121	791	29,061	99	708	1,745	1	1	1,366	385	!
Other white oak	19,854	157	6,135	13,166	331	1	;	1	1	9	1
Select red oak	45,828	80	36,845	6/6	815	2,291	8	;	3,435	1,383	i
Other red oak	27,445	;	22,561	1,684	365	1,233	34	8	1,084	431	53
Select hickory	17,388	94	13,249	302	212	1,609	1	i	1,305	617	;
Other hickory	11,693	1	6,029	165	584	1,140	i	1	3,640	135	1
Pecan	8,986	:	7,408	ŀ	123	1,053	1	1	235	167	1
Hard maple	3,120	!	1,403	1	;	1,117	1	;	212	388	1
Soft maple	21,011	1	330	ŧ	;	15,591	29	!	4,845	178	1
Ash	61,700	ī	5,647	1	618	39,901	1,493	206	10,998	1,633	204
Cottonwood	134,292	1	1,556	1	640	34,107	90,065	383	5,166	1,675	700
Basswood	6,031	1	2,883	1	1,442	485	126	1	458	627	1 8
Elm	30,599	130	5,119	1	1,274	11,901	654	;	7,901	3,235	385
Black walnut	57,868	280	11,689	506	6,286	5,315	408	;	30,528	2,747	109
Willow	11,629	1	306	1	53	9,065	913	292	465	141	119
Boxelder	10,376	1	210	1	200	7,007	360	-	2,477	69	53
Hackberry	86,674	59	6,085	89	4,728	13,207	346	1	60,377	1,423	381
Sycamore	21,538	1	2,751	1	279	7,551	242	-	9,915	723	77
Other hardwoods	35,651	91	3,729	125	1,578	13,339	457	1	11,763	4,078	491
Total	706,724	2,153	193,074	17,141	23,849	172,531	95,165	1,156	178,527	20,493	2,635
All species	711,315	4,745	193,691	17,141	24,141	172,629	95,165	1,156	178,742	21,118	2,787
All species	616,117	4,/45	193,091	1/,141	24,141	1/2,029	92,10	2		061,1	1,150 1/8,/42

Table 49.--Net volume of sawtimber on commercial forest land by species group and forest type, Kansas, 1981

(In thousand board feet) $\frac{1}{2}$ 

Species SOFTWOODS		1 1 1 1 1 1 1 1 1	1 1 1 1	1		Forest type	type				
Species SOFTWOODS	A11	Eastern redcedar-	0ak-	Post- blackjack	Upland	Elm-ash-			Lowland	Upland elm-ash-	Non-
SOFTWOODS Eastern redceder	types	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
	10 871	7 523	1 649						360	950	381
רמז כבו וו ובתרביזמו	10,01		1,9042							000	100
Total	10,871	7,523	1,649	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1	1	9 9	360	958	381
HARDWOODS											
Bur oak	286,120	571	126,292	;	14,353	25,761	;	1	117,449	1,694	;
Select white oak	107,383	3,423	86,530	339	1,721	6,867	1	1	7,072	1,431	;
Other white oak	36,531	301	11,969	22,290	1,599	1	;	1	,	372	ţ
Select red oak	183,457	;	149,217	2,739	3,093	11,105	;	1	13,024	4,279	1
Other red oak	118,665	ì	103,150	2,589	1,578	4,332	1	;	5,085	1,593	338
Select hickory	43,047	;	29,052	1,427	1,004	7,077	1	,	3,105	1,382	1
Other hickory	24,649	1	12,535	1	;	3,760	1	;	8,025	329	;
pecan	28,043	;	22,543	!	;	4,105	!	1	760	635	!
Hard maple	6,280	1	3,110	1	1	2,182	}	1 1	1	988	!
Soft maple	87,834	ł	2,030	1	;	65,063	335	!	20,119	287	1
Ash	185,760	!	15,443	-	1,473	118,802	2,463	369	43,785	1,623	802
Cottonwood	610,060	1	9,366	1	3,395	164,607	399,810	1,812	25,580	5,816	2,674
Basswood	25,763	1	11,756	1	6,9659	2,638	1	1	1,579	3,131	1
Elm	69,531	342	10,158	1	2,544	27,533	1,447	1	21,838	4,879	790
Black walnut	169,979	1,061	32,578	1	14,329	14,742	523	ľ	99,584	7,162	1
Willow	47,901	1	869	{	1	40,355	2,415	1,941	1,363	466	663
Boxelder	22,839	1	589	l t	988	12,052	908	!	8,506	1	1
Hackberry	299,581	:	18,596	346	13,711	39,479	1,304		222,890	2,627	628
Sycamore	105,631		12,700	l i	1,232	38,961	904	!	48,446	3,043	345
Other hardwoods	96,304	1	11,222	305	3,165	36,662	205	;	33,076	11,299	373
Total	2,555,358	5,698	667,534	30,032	70,742	626,083	410,212	4,122	681,286	53,036	6,613
All species	2,566,229	13,221	669,183	30,032	70,742	626,083	410,212	4,122	681,646	53,994	6,994

 $\frac{1}{2}$  International 1/4-inch rule.

Table 50.--Net volume of growing stock on commercial forest land by species group and ownership class, Kansas, 1981

					Owners	hip class		
	A11	National	Misc.			County and		Misc.
Species group	classes	forest	federal	Indian	State	municipal	Farmer	private
SOFTWOODS								
Eastern redcedar	4,591		52				3,289	1,250
Total	4,591		52				3,289	1,250
HARDWOODS								
Bur oak	60,920		1,237		282		38,563	20,838
Select white oak	34,121		978			200	18,816	14,127
Other white oak	19,854		731				14,227	4,896
Select red oak	45,828		1,049				27,348	17,431
Other red oak	27,445		123		3,041		15,875	8,406
Select hickory	17,388		616		114		8,230	8,428
Other hickory	11,693		450		ad -1		6,696	4,547
Pecan	8,986		~ -		91		3,444	5,451
Hard maple	3,120				48.40		737	2,383
Soft maple	21,011		749		1,566	659	11,177	6,860
Ash	61,700		1,523		941		40,475	18,761
Cottonwood	134,292		9,794	398	2,130		73,053	48,917
Basswood	6,031		98				3,943	1,990
Elm	30,599		1,192	58	139	130	17,944	11,136
Black walnut	57,868	~-	2,229		66	223	36,723	18,627
Willow	11,629		232		32	443	7,763	3,159
Boxelder	10,376		95		140 140	200	7,379	2,702
Hackberry	86,674		3,628	180	92	990	55,798	25,986
Sycamore	21,538		1,608				15,703	4,227
Other hardwoods	35,651		1,520	398	246	432	19,981	13,074
Total	706,724		27,852	1,034	8,740	3,277	423,875	241,946
All species	711,315		27,904	1,034	8,740	3,277	427,164	243,196

Table 51.--Net volume of sawtimber on commercial forest land by species group and ownership class, Kansas, 1981

					Ownershi	p class		
	A11	National	Misc.			County and		Misc.
Species group	classes	forest	federal	Indian	State	municipal	Farmer	private
SOFTWOODS								
Eastern redcedar	10,871						9,115	1,756
Total	10,871						9,115	1,756
HARDWOODS								
Bur oak	286,120		5,909		1,271		180,540	98,400
Select white oak	107,383		3,014				65,965	38,404
Other white oak	36,531		1,902		~ -		25,810	8,819
Select red oak	183,457		4,751				105,393	73,313
Other red oak	118,665				18,519		69,966	30,180
Select hickory	43,047		425		286		21,144	21,192
Other hickory	24,649						14,218	10,431
Pecan	28,043				541		12,991	14,511
Hard maple	6,280				~ ~	100 100	1,617	4,663
Soft maple	87,834		2,936		8,597	2,004	44,993	29,304
Ash	185,760		4,073		4,798		118,314	58,575
Cottonwood	610,060		55,081	862			336,232	217,885
Basswood	25,763		487			40 40	17,069	8,207
Elm	69,531		2,022		10.00	628	43,595	23,286
Black walnut	169,979		9,998		342	628	107,965	51,046
Willow	47,901		831			2,064	31,674	13,332
Boxelder	22,839					886	16,780	5,173
Hackberry	299,581		9,875	315	471	2,492	192,875	93,553
Sycamore	105,631		9,068				77,423	19,140
Other hardwoods	96,304		5,351	1,513	1,591	1,970	49,455	36,424
Total	2,555,358		115,723	2,690	36,416	10,672	1,534,019	855,838
All species	2,566,229		115,723	2,690	36,416	10,672	1,543,134	857,594

 $<sup>\</sup>frac{1}{2}$ International  $\frac{1}{4}$ -inch rule.

Table 52.--Met volume of growing stock on commercial forest land by forest type and stand-age class, Kansas, 1981

(In thousand cubic feet)

	All						S	tand-age	Stand-age class (years)	ars)				
Forest type	classes 0-10	0-10	11-20	21-30	21-30 31-40	41-50	51-60	61-70	61-70 71-80 81-90	81-90	1 1	91-100 101-120	121-140	141+
Eastern redcedar-hardwood	4,745	1,271	466	1	589	;	1,249	;	:	;	į	1	1,170	:
Oak-hickory	193,691	8,406	8,315	8,768	13,044	18,005	20,214	24,112	25,032	13,084	23,229	19,842	9,680	1,960
Post-blackjack oak	17,141	190	85	338	2,483	7,975	711	348	2,130	2,125	1	756	1	;
Upland plains hardwoods	24,141	948	2,763	2,129	2,378	2,581	3,690	5,711	940	877	1	444	1,680	1
Elm-ash-cottonwood	172,629	6,963	11,248	5,593	11,614		36,007	28,026		19,496	8,459	8,478	1	1
Cottonwood	95,165	135	71	1,693	3,632	13,005	10,609	25,472	11,615	5,226	14,536	9,171	1	1
Willow	1,156	1	761	270	1 8	!	125	!	1	i	1	-	1	1
Lowland plains hardwoods	178,742	4,557	5,943	4,743	14,929	6,007	28,804	36,095	36,442	14,175	15,397	9,505	675	1,470
Upland elm-ash-locust	21,118	3,006	4,162	1,578	2,854	579	1,165	1,970	1,677	1,504	1,142	447	1,034	1
Monstocked	2,787	415	322	471	295	:	842	119	280	43	5	:	;	1
All types	711,315	711,315 25,891 3	34,136		51,818	57,616	25,583 51,818 57,616 103,416 121,853 105,397	121,853	105,397	56,530	62,763	48,643	14,239	3,430

Table 53.--Net volume of sawtimber on commercial forest land by forest type and stand-age class, Kansas, 1981

(In thousand board feet) $\frac{1}{2}$ 

	A11						Stand	ordnu-dye cidss		1		1	1	
Forest type	classes	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-140	141+
Eastern redcedar-hardwood	13,221	2,209	876	1	1,018	1	4,308			;	†	9	4,810	§ 8
Oak-hickory	669,183	29,466	25,406	17,915	23,341	37,797	44,030	87,036	99,907	57,366	104,212	90,533	42,054	10,120
Post-blackjack oak	30,032	517	1	;	1,222	6,406	1,653			7,290	1	3,454	1	1
Upland plains hardwoods	70,742	191	4,978	3,868	4,176	4,392	14,329			3,394	1	1,335	5,720	1
Elm-ash-cottonwood	626,083	23,616	21,854	11,796	19,671	29,745	135,753			77,025	44,050	40,373	ŧ	7
Cottonwood	410,212	;	347	858	3,501	49,235	41,419			18,276	79,571	49,777	1	1
Willow	4,122	-	3,144	328	1	;	650			!	1	į	1	;
Lowland plains hardwoods	631,646	23,175	16,300	10,063	31,936	19,683	100,032			59,789	65,684	40,680	3,271	7,741
Upland elm-ash-locust	53,994		7,884	2,881	6,281	1,389	4,106			4,215	3,476	1,877	2,690	1
Nonstocked	6,994	1,410	51.4	337	373	1	2,513			216	1	;	1	
All types	2,566,229 88,084		31,303	43,046	91,519	143,697	348,793	439,014	441,774	227,571	296,993	228,029	58,545	17,861

 $\frac{1}{2}$  International 1/4-inch rule.

Table 54.--Met volume of growing stock on commercial forest land by forest type, stand-size class, and basal-area class, Kansas, 1981

(In thousand cubic feet)

Forest type and	AII					Ba	isal-are	a class	Basal-area class (square feet per	feet per	acre)				
stand-size class	classes	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Eastern redcedar-hardwood															
Sawtimber	1,870	1	;	;	;	!	;	;	;	,	;	1,870	!	1	:
Poletimber	1,138	;	1	;	1	;	;	589	549	;	;	;	1	!	į
Sapling & seedling	1,737	32	133	!	532	747	293	;	;	;	;	;	1	!	;
All stands	4,745	32	133	;	532	747	293	589	549	;		1,870	:	:	;
Oak-hickory															
Sawtimber	116,700	1	;	277	1,220	8,219	7,987	19,731	13,943	15,803	21,678	19,380	8,462	;	1
Poletimber	57,675	;	;	;	315	1,494	4,337	9,117	12,038	5,511	5,420	15,255	4,188	1	;
Sapling & seedling	19,316	20	1,059	702	6,135	4,367	1,919	1,780	1,698	366	614	1	;	!	;
All stands	193,691	50	1,059	676	7,670	14,080	14,243	30,628	27,679	22,306	27,712	34,635	12,650	;	;
Post-blackjack oak															
Sawtimber	4,329	;	;	442	;	;	348	1,156	1,438	945	1	1	1	;	;
Poletimber	11,805	1	;	;	7	1	1 1	,	2,492	953	4,040	2,661	1,659	1	;
Sapling & seedling	1,007	;	;	35	;	,	137	190	1	1	595	:	;	1	1
All stands	17,141	:	1	527	:	:	485	1,346	3,930	1,898	4,635	2,661	1,659	:	;
Upland plains hardwoods															
Sawtimber	12,942	1	1	;	425	1,437	649	1,821	2,075	3,021	1,562	;	1,952	}	1
Poletimber	8,384	;	1	148	;	563	1,677	1,178	379	968	2,220	1,323	1	;	1
Sapling & seedling	2,815	;	,	401	420	708	1	292	293	428	1	-	-	•	;
All stands	24,141	;	;	549	845	2,708	2,326	3,564	2,747	4,345	3,782	1,323	1,952	;	;
Elm-ash-cottonwood															
Sawtimber	128,904	;	250	1,342	2,960	7,752	6,741	12,361	14,166	4,976	11,827	29,083	23,239	14,197	i
Poletimber	25,595	1	0	292	:	965	3,058	3,908	2,611	5,801	2,089	5,894	702	1 1	,
Sapling & seedling	18,130	6/	518	1,182	4,405	6,210	2,494	1,138	853	108	1,143	t	•	!	1
All stands	172,629	79	778	3,091	7,365	14,927	12,293	17,407	17,630	10,885	15,059	34,977	23,941	14,197	:
Cottonwood														i	
Sawtimber	89,787	;	153	199	478	3,153	5,217	1,106	10,047	1,779	6,722	12,604	26,647	9,885	11,335
Poletimber	4,175	1	;	;	!	!	269	;	1,317	;	2,161	!	!	;	;
Sapling & seedling	1,203	1	71	;	135	1	1	1	1	1	266	1	1	!	1
All stands	95.165	;	224	661	513	3.153	5.914	1.106	11 364	1.779	9,880	12,604	26.647	9 885	11, 335

(Table 54 continued)

Forest type and	All					<u> </u>	lasal-are	a class	(square	Basal-area class (square feet per	acre)				
stand-size class	classes	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Willow															
Sawtimber	125	-	;	;	;	;	;	;	;	;	1	125	;	1	;
Poletimber	270	;	;	;	270	;	;	;	;	1	1	;	;	1	!
Sapling & seedling	761	;	1	;	;	1	. 761	;	;	;	;	1	-	1	1
All stands	1,156	1	;	;	270	;	751	;	1	;	;	125	1	;	1
Lowland plains hardwoods															
Sawtimber	142,626	1	;	;	4,919	6,790		17,118	19,043	17,642	22,897	32,283	14,773	1	-
Poletimber	25,156	;	342	401	530	1	2,794	3,723	6,051	160	4,880	5,675	-	;	1
Sapling & seedling	10,960	1	417	1,012	2,241	1,889	784	2,880	1,737	;	;		;	1	1
All stands	178,742	;	759	1,413	7,690	8,679	10,739	23,721	26,831	18,402	171,73	37,958	14,773	;	;
Upland elm-ash-locust															
Sawtimber	8,765	1	;	114	879	363	;	2,441	1,757	2,450	761	;	;	1	7
Poletimber	4,371	1	1	;	265	ì	260	1,862	469	-	808	200	!	1	1
Sapling & seedling	7,982	20	1,332	589	1,278	1,555	925	355	867	1	531	;	;	;	1
All stands	21,118	20	1,332	703	2,422	1,918	1,185	5,158	3,093	2,450	2,101	. 706	;	1	;
Nonstocked	2,787	50	853	167	494	845	316	62	•	7	•	7	-	2	1
All types															
Sawtimber	506,048	1	413	2,836	10,881	27,714		55,734	65,469	46,616	65,447	95,345	75,073	24,082	11,335
Poletimber	138,569	;	342	1,116	1,380	3,022		20,377	25,906	13,921	21,619	31,514	6,549	!	;
Sapling & seedling	63,911	211	3,530	3,971	15,146	15,476	7,313	7,408	5,448	1,528	3,880	i	1	ì	1
Nonstocked	2,787	20	853	167	494	845		62	1	1	;	1	1	1	3
All stands	711 315	261	5.138	090 8	27,901	47 057	48,555	83 581	93 823	62 065	90 946	126,859	81 622	24 082	11 335

Table 55.--Net volume of sawtimber on commercial forest land by forest type, stand-size class, and basal-area class, Kansas, 1981

ss classes 0-10 11-20 21-30 31-40 41-56 61-50 61-70 71-80 61-90 91-100 101-120 121-150 13 ar-hardwood 7,551	class cedar-hardwood r seedling nds	asses	0-10	11 20	000	0 10										
0.4         7,551         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - </th <th>r seedling nds</th> <th></th> <th></th> <th>02-11</th> <th>21-30</th> <th>31-40</th> <th>41-50</th> <th>51-60</th> <th>61-70</th> <th>71-80</th> <th>81-90</th> <th>91-100</th> <th>101-120</th> <th>121-150</th> <th>151-180</th> <th>181+</th>	r seedling nds			02-11	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
2,885         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td>seedling</td> <td></td>	seedling															
2,885       -       -       1,298       1,471       316       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	seedling	7,551	1	1	1	1	;	t	;	:	-	•	7,551	1	ì	
3,085	seedling nds 50	2,585	1	1	t t	1 1	1	1	1,018	1,567	-	1	1	1	1	i
13,721	Spu Spu	3,085	1	!	1	1,298	1,471	316	1	1	1	1	!	1	1	i
502,737		3,221	;	1	;	1,298	1,471	316	1,018	1,567	,	7	7,551	;	,	,
502,737         -         1,050         5,534         39,096         32,298         90,535         48,094         69,043         39,91         35,432         31,644         50,044         105,294         -         -         21,14         5,899         14,888         25,228         8,762         11,698         31,041         5,064         669,183         -         2,041         5,064         106,499         107,760         116,411         5,064         106,499         107,760         116,413         5,064         107,466         107,471         3,522         5,895         3,629         -         -         1,044         111,219         79,319         107,760         116,473         42,746         116,411         2,044         117,159         6,275         1,292         -         -         -         1,489         2,524         107,760         116,473         42,746         116,411         42,744         117,219         -         -         1,746         -         -         1,746         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -																
105, 294           2,714         5,899         14,888         25,228         8,762         11,698         31,041         5,064           669,183          3,847         2,102         13,422         14,677         5,796         6,491         2,091         1,489         2,091         16,473         42,448           669,183          2,867           1,071         3,522         5,805         3,629           1,448         1,528         6,275         1,292           1,448         1,1716         1,760         116,473         42,448         11,1219         79,819         1,071         1,588           1,246           1,526         4,039         9,106         5,275         1,292           5,976           5,976 <td< td=""><td></td><td>2,737</td><td>;</td><td>;</td><td>1,050</td><td>5,534</td><td>39,096</td><td>32,298</td><td>90,535</td><td>48,094</td><td>69,043</td><td>93,971</td><td>35,432</td><td>37,684</td><td>1</td><td>•</td></td<>		2,737	;	;	1,050	5,534	39,096	32,298	90,535	48,094	69,043	93,971	35,432	37,684	1	•
61.152          3,847         2,102         18,542         16,111         4,677         5,796         6,497         1,489         2,091		5,294	1	1	î	1	2,714	5,899	14,888	25,228	8,762	11,698	31,041	5,064	1	į
16,894         -         3,847         3,152         24,076         57,921         42,874         111,219         79,819         79,294         107,760         116,473         42,748           16,894         -         -         1,071         3,522         5,805         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -		1,152	1	3,847	2,102	18,542	16,111	4,677	2,796	6,497	1,489	2,091	1	1	1	•
16,894       -       2,867       -       -       1,071       3,522       5,805       3,629       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -		9,183	1	3,847	3,152	24,076	57,921	42,874	111,219	79,819	79,294	107,760	116,473	42,748	į	í
16,894        2,867        1,071       3,522       5,805       3,629          1,292        3,301       1,598       6,275       1,292         1,598       6,275       1,292          1,602         1,602         1,292         5,976         5,976         5,976         5,976         5,976 </td <td>Post-blackjack oak</td> <td>1</td> <td></td> <td>!</td>	Post-blackjack oak	1														!
12,466          3,301       1,598       6,275       1,292          672        2,867         1,226       4,039       9,106       5,227       6,275       1,292          51,615        2,867        1,407       3,181       1,868       7,644       11,715       8,257        5,976         15,165         1,407       3,181       1,868       7,644       11,715       8,257        5,976         15,166         1,407       3,181       1,868       7,644       11,715       8,257        5,976         70,742         -       4,733         2,947        5,976        5,976       2,147       9,651       7,938       14,669       12,770       2,413       5,976        1,319       5,837       9,993       6,343       6,738       4,619       10,602       1,534       48,100       59,250       18,447       42,297       129,997       91,335       48,287         1,534       1,534       1,534		5,894	1	1	2,867	;	1	1,071	3,522	5,805	3,629	-	1 0	* *	ŧ	į
672         -         155         517         -         -         -         1,226         4,039         9,106         5,227         6,275         1,292         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         5,976         -         -         -         5,976         -         -         -         5,976         -         -         5,976         -         -         -         -         5,976         -         -         -         5,976         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -		2,466	;	;	;	\$	9	;	•	3,301	1,598	6,275	1,292	1	1 9	;
51,615        -       2,867        1,226       4,039       9,106       5,227       6,275       1,292        5,976         15,165         1,407       3,181       1,868        1,784       4,513       2,413        5,976         15,166         1,407       3,181       1,868        1,784       4,513       2,413         5,976         3,961          2,024       473        1,784       4,513       2,413            2,976       473         2,94 <td>seedling</td> <td>672</td> <td>1</td> <td>1 1</td> <td>;</td> <td>ŧ</td> <td>1.</td> <td>155</td> <td>. 517</td> <td>1</td> <td>1</td> <td>1 1</td> <td>1</td> <td>1</td> <td>1</td> <td>i</td>	seedling	672	1	1 1	;	ŧ	1.	155	. 517	1	1	1 1	1	1	1	i
51,615        -       2,251       6,023       1,966       7,783       7,644       11,715       8,257        5,976         15,166        -       1,407       3,181       1,868        1,784       4,513       2,413        5,976         3,961        -       2,024       473        2,94       1,170 <td>1</td> <td>0,032</td> <td>1</td> <td>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>2,867</td> <td>1 1</td> <td>1 1</td> <td>1,226</td> <td>4,039</td> <td>9,106</td> <td>5,227</td> <td>6,275</td> <td>1,292</td> <td>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>,</td> <td>1 1</td>	1	0,032	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,867	1 1	1 1	1,226	4,039	9,106	5,227	6,275	1,292	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,	1 1
51,615        -       2,251       6,023       1,966       7,783       7,644       11,715       8,257        5,976         15,166        -       -       1,407       3,181       1,868        1,784       4,513       2,413        5,976         3,961        -       2,024       473        2,94       1,170       2,413       5,976         70,742        -       4,275       7,903       5,147       9,651       7,938       14,669       12,770       2,413       5,976         48,229        1,009       6,911       12,522       29,764       32,633       48,100       59,250       18,447       42,297       129,997       30,325         48,220        1,236       3,608       10,344       14,628       9,053       2,458       6,384       6,738       4,619       10,602       1,534         48,388       522       1,256       3,608       45,711       47,523       60,551       66,328       25,410       52,473       140,599       91,859         406,054       -       -       -       -       -       -	Upland plains hardwoods	1	1		† † † † †	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	; ; ; ;		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1						1
er       15,166         1,407       3,181       1,868        1,784       4,513       2,413          & seedling       3,961          1,407       3,181       1,868        1,784       4,513       2,413          ands       70,742         4,275       7,903       5,147       9,651       7,938       14,669       12,770       2,413       5,976         ttonwood       529,475        1,009       6,911       12,522       29,764       32,633       48,100       59,250       18,447       42,297       129,997       90,325         er       48,388       522       1,258       3,608       10,344       14,628       9,053       2,458       225       6,557       10,602       1,534         ands       626,083       522       2,267       11,754       22,866       45,711       47,523       60,551       66,328       25,413       140,599       91,859         r       406,054        548       2,152       1,624       11,869       26,627       4,744       40,616       8,722       39,360       49,792       12		1,615	1	;	ţ	2,251	6,023	1,966	7,783	7,644	11,715	8,257	1	5,976	1	i
8 seedling 3,961 2,024 473 294 1,170 297 5,976 ands 70,742 4,275 7,903 5,147 9,651 7,938 14,669 12,770 2,413 5,976 ttunwood 529,475 1,009 6,911 12,522 29,764 32,633 48,100 59,250 18,447 42,297 129,997 9J,325 er 48,220 1,235 1,319 5,837 9,993 6,343 6,738 4,619 10,602 1,534 & 48,220 1,256 3,608 10,344 14,628 9,053 2,458 735 5,557 5,557 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 143,599 91,859 er 406,054 548 2,152 1,624 11,869 26,627 4,744 40,616 8,722 39,360 49,792 123,350 er 410,212 895 2,152 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350		5,166	1	1	ŧ	1	1,407	3,181	1,868	1	1,784	4,513	2,413	t i	1 9	1
tronwood 529,475 4,275 7,903 5,147 9,651 7,938 14,669 12,770 2,413 5,976 tronwood 529,475 1,009 6,911 12,522 29,764 32,633 48,100 59,250 18,447 42,297 129,997 9J,325 er 48,220 1,253 3,608 10,344 14,628 9,053 2,458 735 5,343 6,738 4,619 10,602 1,534 ands 626,083 522 2,267 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 14J,599 91,859 er 456,054 548 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 er 456	i	3,961	1	;	1	2,024	473	1	1	294	1,170	1		1	1	1
ttonwood 529,475 1,009 6,911 12,522 29,764 32,633 48,100 59,250 18,447 42,297 129,997 9J,325 er 48,220 1,253 3,608 10,344 14,628 9,053 2,458 735 525 5,557 1,534 ands 626,083 522 2,267 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 14J,599 91,859 er 456,054 548 2,152 1,624 11,869 26,627 4,744 47,663 8,722 39,360 49,792 123,350 er 456,627 2,953 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 3		3,742	1	1	1	4,275	7,903	5,147	9,651	7,938	14,669	12,770	2,413	5,976	-	
For Seedling 626,084 52 - 1,009 6,911 12,522 29,764 32,633 48,100 59,250 18,447 42,297 129,997 3J,325 er 48,220 - 1,235 - 1,319 5,837 9,993 6,343 6,738 4,619 10,602 1,534 er 48,220 - 1,256 3,608 10,344 14,628 9,053 2,458 735 525 5,557 - 1,534 er 48,619 10,602 1,534 er 48,388 522 2,267 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 14J,599 91,859 er 45,677 - 554 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 er 48,616 8,722 39,664 49,792 123,350 er 410,212 - 895 2,152 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350																
er       48,220        1,235        1,319       5,837       9,993       6,343       6,738       4,619       10,602       1,534         & seedling       48,388       522       1,256       3,608       10,344       14,628       9,053       2,458       735       225       5,557          ands       626,083       522       2,267       11,754       22,866       45,711       47,523       60,551       66,328       25,410       52,473       140,599       91,859       53         r       406,054        548       2,152       1,624       11,869       26,627       4,744       37,663       8,722       39,360       49,792       123,350       49         er       3,507         554        2,953         304         er       3,507         564       11,869       27,181       4,744       40,616       8,722       39,664       49,792       123,350       49		9,475	1	1,009	6,911	12,522	29,764	32,633	48,100	59,250	18,447	42,297	129,997	90,325	58,220	1
# seedling 48,388 522 1,258 3,608 10,344 14,628 9,053 2,458 735 225 5,557  ands 626,083 522 2,267 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 140,599 91,859 58  r 406,054 548 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 49  er 3,507 548 2,152 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350 49  ands 410,212 895 2,52 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350 49		3,220	1	1	1,235	!	1,319	5,837	9,993	6,343	6,738	4,619	10,602	1,534	1	;
ands 626,083 522 2,267 11,754 22,866 45,711 47,523 60,551 66,328 25,410 52,473 140,599 91,859 58  r 406,054 548 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 49  er 3,507 548 2,152 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350 49  ands 410,212 895 2,152 1,624 11,869 27,181 4,744 40,616 8,722 39,664 49,792 123,350 49			522	1,258	3,608	10,344	14,628	9,053	2,458	735	225	5,557	1		1	;
r 406,054 548 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 49. er 3,507 54 554 2,953 3.9			522	2,267	11,754	22,866	45,711	47,523	60,551	66,328	25,410	52,473	140,599	91,859	58,220	
406,054 548 2,152 1,624 11,869 26,627 4,744 37,663 8,722 39,360 49,792 123,350 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49, 35 49,	1	1	1	1	1	1										
seedling 651 347 554 2,953 304 2,953 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304 304		6,054	i	548	2,152	1,624	11,869	26,627	4,744	37,663	8,722	39,360	49,795	123,350	49,003	50,600
651 347 304 304 411.869 27.181 4.744 40.616 8.722 39.664 49.792 123.350 49		3,507	1	1 1	1 1	1	;	554	1	2,953	1	1 1	1	ř Ť	†	
410.212 895 2.152 1.624 11.869 27.181 4.744 40.616 8.722 39.664 49.792 123.350 49	Sapling & seedling	651	1 1	347	1 2	1	9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, I	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	1	304	1 1	1 1		
10 (10 (10 (10 (10 (10 (10 (10 (10 (10 (	All stands 410	0,212	1	895	2,152	1,624	11,869	27,181	4,744	40,616	8,722	39,664	49,792	123,350	49,003	50,600

 $\frac{1}{L}$ International 1/4-inch rule.

(Table 55 continued)

Forest type and	All					<b>a</b>	Basal-area class (square feet per acre	class (s	quare fee	t per acr	(e)				
stand-size class	classes 0-10 11-20	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Willow															
Sawtimber	650	;	;	ţ	†	,	!	!	1		1	650	1	*	
Poletimber	328	i	1	1	328	1 8	1	9	ę	1	1	1	1 1	8	1
Sapling & seedling	3,144	1	;	3	1	;	3,144	;	!	;	1	1	;	1	,
All stands	4,122	1	;	;	328		3,144		1			920	1	:	
Lowland plains hardwood															
Sawtimber	593,421	1	1	;	20,821	28,066	32,332	68,809	82,310	68,893	96.574	133,375	62.241	3	,
Poletimber	46,369	;	,	337	504	1	2,809	8,551	10,447	1,701	10,832	11,188	1 B	1	1
Sapling & seedling	41,856	!	1,358	1,521	8,699	5,456	3,192	9,105	12,525	-	-	9 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	;	1
All stands	681,646	1	1,358	1,858	30,024	33,522	38,333	86,465	105,282	70,594	107,406	1.44,563	62,241		'
Upland elm-ash-locust															
Sawtimber	28,725	ţ	;	262	3,638	1,120	1	7,597	5,215	8,788	2,105	1	1	,	;
Poletimber	7,870	ł	;	;	195	1	620	4,103	314	1	1,243	1,395	1	-	1
Sapling & seedling	17,399	1	2,593	1,760	3,124	5,106	2,373	750	935	1	758	1	8	1	9
All stands	53,994	;	2,593	2,022	6,957	6,226	2,993	12,450	6,464	8,788	4,106	1,395		;	
Nonstocked	6,994	1	3,140	586	1,316	1,783	169	1	1	1	:	1			
All types															
ar.	2,137,122	!	1,557	13,242		115,938	126,927	231,090	245,981	189,237	282,564	406,797	319,576	107,223	50,600
Poletimber	241,805	í	:	1,572		5,440	18,900	40,421	50,153	20,583	39,180	57,931	6,598	!	
Sapling & seedling	180,308	522	9,403	9,403 8,991	44,031	43,245	22,910	18,626	20,986	2,884	8,710	1		,	,
Nonstocked	6,994	1		586		1,783	169	1	:		,	1	f f	ì	1
All etands	000 333 0		100 00 001	100 00	00 764	100	000		24.7 400		1 2 0 0 0	1007 404		0000	000

Table 56.--Net volume of sawtimber on commercial forest land by species group and butt log-grade, Kansas, 1981

	All		Log	grade	
Species group	grades	1	2	3	Tie and timber
SOFTWOODS					
Eastern redcedar	10,871			9,288	1,583
Total	10,871			9,288	1,583
HARDWOODS					
Bur oak	286,120	62,314	83,866	125,690	14,250
Select white oak	107,383	15,773	31,101	57,630	2,879
Other white oak	36,531	1,511	11,996	22,451	573
Select red oak	183,457	42,611	58,851	77,067	4,928
Other red oak	118,665	16,741	40,147	52,680	9,097
Select hickory	43,047	7,461	16,724	17,213	1,649
Other hickory	24,649	3,698	11,719	8,127	1,105
Pecan	28,043	11,015	6,254	10,774	
Hard maple	6,280	1,141	1,889	2,698	552
Soft maple	87,834	19,380	28,931	35,865	3,658
Ash	185,760	68,512	61,858	53,810	1,580
Cottonwood	610,060	326,242	136,913	136,314	10,591
Basswood	25,763	8,822	3,602	12,284	1,055
Elm	69,531	8,683	10,404	46,889	3,555
Black walnut	169,979	40,924	66,343	61,521	1,191
Willow	47,901	17,421	13,992	14,031	2,457
Boxelder	22,839		5,456	15,893	1,490
Hackberry	299,581	89,384	96,672	103,430	10,095
Sycamore	105,631	60,261	30,246	14,175	949
Other hardwoods	96,304	7,671	30,719	53,286	4,628
Total	2,555,358	809,565	747,683	921,828	76,282
All species	2,566,229	809,565	747,683	931,116	77,865

 $<sup>\</sup>frac{1}{2}$ International  $\frac{1}{4}$ -inch rule.

Table 57.--Net volume of growing-stock trees by forest type and ground land use, Kansas, 1981

(In thousand cubic feet)

		Ground la	nd use		
	Pastured	Unpastured	Wooded		Wooded
Forest type	commercial forest	commercial forest	strips	Windbreaks	pasture
Eastern redcedar-hardwood	1,262	3,483	16,881		1,449
Oak-hickory	48,040	145,651	2,309		3,939
Post-blackjack oak	6,669	10,472			
Upland plains hardwoods	9,108	15,033	1,828	475	1,438
Elm-ash-cottonwood	27,954	144,675	36,157		6,318
Cottonwood	25,286	69,879	3,676		1,313
Willow		1,156	1,336		
Lowland plains hardwoods	33,580	145,162	12,652		2,801
Upland elm-ash-locust	8,071	13,047	13,706		2,924
Nonstocked	1,421	1,366	2,998		3,247
All types	161,391	549,924	91,543	475	23,429

Table 58.--Net volume of black walnut, by land class and tree class, Kansas, 1981

				Nonfores	t with trees	
Tree class	Commerci	Commercial forest	Mooded	Wooded strips	Other nonforest with trees	est with trees
	Thousand cubic feet	Thousand board feet 1/	Thousand cubic feet	Thousand board feet_/	Thousand cubic feet	Thousand board feet 1/
Growing stock	57,868		3,368	;	2,133	1
Sawtimber	1	169,979	1	8,669	1	6,486
Short-log cull	5,495	13,121	685	991	573	606
Rough and rotten cull	5,384		487	1	755	
All classes	68,747	183,100	4,540	099,6	3,461	7,395

 $\frac{1}{2}$ /International 1/4-inch rule.

Table 59.--Net volume of growing-stock and short-log trees on commercial forest land and wooded strips, by species group and Forest Survey Unit, Kansas, 1981

ALL	HI	ITS

		ALL UN Commercial fo		Mondad a	trinc
				Wooded s	
Species group	Total	Growing-stock trees	Short-log trees	Growing-stock trees	Short-log trees
<del></del>	10 ta 1	trees	trees	ti ees	trees
SOFTWOODS Eastern redcedar	6 077	4,591	410	1 076	
	6,077			1,076	
Total	6,077	4,591	410	1,076	
HARDWOODS					
Bur oak	78,929	60,920	6,634	11,301	74
Select white oak	39,284	34,121	4,875	258	30
Other white oak	21,641	19,854	1,787	1 050	
Select red oak	49,432	45,828	1,755	1,658	191
Other red oak	30,416	27,445	2,097	874	
Select hickory	18,493	17,388	928	177	20
Other hickory	13,399	11,693	934 757	733 798	39
Pecan	10,665	8,986 3,120	125	790	124
Hard maple	3,245			2,953	
Soft maple Ash	25,042 80,493	21,011 61,700	1,078 5,446	11,082	2,265
Cottonwood	162,335	134,292	4,011	24,032	2,205
Basswood	7,109	6,031	734	344	
Elm	44,980	30,599	8,010	5,154	1,217
Black walnut	67,416	57,868	5,495	3,368	685
Willow	14,014	11,629	821	1,475	89
Boxelder	17,609	10,376	3,487	2,174	1,572
Hackberry	109,599	86,674	9,118	12,710	1,097
Sycamore	26,445	21,538	250	4,657	1,057
Other hardwoods	52,671	35,651	8,677	6,719	1,624
Total	873,217	706,724	67,019	90,467	9,007
All species	879,294	711,315 NORTHEASTE	67,429	91,543	9,007
20011702		NONTHEASTE	INN ONTI		
SOFTWOODS	0.051	0.446	225	100	
Eastern redcedar	2,851	2,446	225	180	
Total	2,851	2,446	225	180	
HARDWOODS					
Bur oak	34,479	29,902	3,708	869	
Select white oak	25,682	22,050	3,602		30
Other white oak	2,315	2,107	208		
Select red oak	26,738	25,577	911	250	
Other red oak	16,583	15,385	788	410	
Select hickory	12,395	11,801	430	164	
Other hickory	7,690	6,665	719	267	39
Pecan	265	265			
Hard maple	1,938	1,938		1 011	
Soft maple	13,003	10,459	633	1,911	
Ash	18,511	13,845	1,283	3,159	224
Cottonwood	48,389	43,561	1,017	3,811	
Basswood	6,696	5,618	734	344	201
Elm Plack walnut	19,950	13,932	3,066	2,571	381
Black walnut	37,917	32,366	2,945	1,959	647
Willow	6,204	5,021	235	948	550
Boxelder	6,169	3,563	865	1,191	
Hackberry	45,013	37,640	2,871	3,883	619
Sycamore	14,808 30,233	11,447	26 4 520	3,335 5,347	861
Othor handwoode	30.733	19,505	4,520	5,347	100
Other hardwoods			20 EC1	20 410	2 251
Other hardwoods Total All species	374,978 377,829	312,647 315,093	28,561 28,786	30,419 30,599	3,351 3,351

(Table 59 continued on next page)

		SOUTHEASTE	RN UNIT		
		Commercial fo	rest land	Wooded s	trips
Chasing amoun	Total	Growing-stock	Short-log	Growing-stock	Short-log
Species group SOFTWOODS	10 ta 1	trees	trees	trees	trees
Eastern redcedar	2,297	2,112	185		
-					
Total	2,297	2,112	185		
HARDWOODS					
Bur oak	19,183	15,644	1,613	1,852	74
Select white oak	13,602	12,071	1,273	258	
Other white oak	19,326	17,747	1,579		
Select red oak	22,694	20,251	844	1,408	191
Other red oak	13,833	12,060	1,309	464	
Select hickory	6,098	5,587	498	13	
Other hickory	5,709	5,028	215	466	
Pecan	10,257	8,578	757	798	124
Hard maple	1,307	1,182	125		
Soft maple	11,912	10,552	318	1,042	
Ash	30,634	26,734	1,759	1,232	909
Cottonwood	11,272	9,786	438	1,048	
Basswood	413	413			
Elm	19,065	12,589	3,150	2,490	836
Black walnut	26,920	23,004	2,469	1,409	38
Willow	4,860	4,204	284	283	89
Boxelder	4,114	1,831	708	983	592
Hackberry	45,226	38,441	2,275	4,328	182
Sycamore	11,333	9,787	224	1,322	
Other hardwoods	15,694	11,527	2,032	1,372	763
Total	293,452	247,016	21,870	20,768	3,798
All species	295,749	249,128	22,055	20,768	3,798
оросто		WESTERN			
SOFTWOODS					
Eastern redcedar	929	33		896	
Total	929	33		896	
HARDWOODS					
Bur oak	25,267	15,374	1,313	8,580	
Select white oak	23,207	15,574	1,515	7,500	
Other white oak					
Select red oak					
Other red oak					
Select hickory					
Other hickory					
Pecan	143	143			
Hard maple	143	143			
Soft maple	127		127		
Ash	31,348	21,121	2,404	6,691	1,132
Cottonwood	400 674	00 045	2,556	40 470	1,152
	102,674	80,945		19,1/3	
Basswood Elm	5,965	4,078	1,794	93	
Black walnut	2,579	2,498	81	93	
Willow	2,950	2,496	302	244	
Boxelder	7,326	4,982	1,914	244	430
	19,360	10,593	3,972	4,499	296
Hackberry Sycamore	304	304	3,372	4,433	2.50
Other hardwoods	6,744		2,125		
-		4,619			1,858
Total	204,787	147,061	16,588	39,280	
All species	205,716	147,094	16,588	40,176	1,858

Table 60.--Net volume of sawtimber and short-log trees on commercial forest land and wooded strips, by species group and Forest Survey Unit, Kansas, 1981

		(In thousand	board feet) $\frac{1}{2}$		
		ALL U	INITS		
		Commercial f	forest land	Wooded	strips
		Sawtimber	Short-log	Sawtimber	Short-log
Species group	Total	trees	trees	trees	trees
SOFTWOODS .					
Eastern redcedar	12,870	10,871	779	1,220	
Total	12,870	10,871	779	1,220	
HARDWOODS					
Bur oak	350,299	286,120	16,080	48,099	
Select white oak	119,652	107,383	12,269		
Other white oak	38,525	36,531	1,994		
Select red oak	192,823	183,457	4,733	4,633	
Other red oak	128,529	118,665	6,328	3,536	
Select hickory	44,878	43,047	1,831		
Other hickory	27,293	24,649	1,685	959	
Pecan	33,204	. 28,043	1,903	2,860	398
Hard maple	6,613	6,280	333		
Soft maple	101,089	87,834	2,571	10,684	
Ash	236,913	185,760	11,798	34,894	4,461
Cottonwood	707,410	610,060	13,704	83,646	
Basswood	28,141	25,763	1,571	807	4 670
Elm	92,790	69,531	12,387	9,199	1,673
Black walnut	192,760	169,979	13,121	8,669	991
Willow	57,075	47,901	2,355	6,433	386
Boxelder	39,152	22,839	7,992	5,125	3,196
Hackberry	363,523	299,581	21,596	41,472	874
Sycamore Other handwoods	120,423	105,631	370	14,422	2 424
Other hardwoods	135,631	96,304	12,504	23,399	3,424
Total	3,016,723	2,555,358	147,125	298,837	15,403
All species	3,029,593	2,566,229	147,904	300,057	15,403
		NORTHEAST	ERN UNIT		
SOFTWOODS					
Eastern redcedar	5,209	5,106	103		
Total	5,209	5,106	103		
HARDWOODS					
Bur oak	136,514	124,290	8,605	3,619	
Select white oak	87,258	77,476	9,782		
Other white oak	6,476	6,145	331		
Select red oak	106,363	104,284	2,079		
Other red oak	76,262	70,133	3,922	2,207	
Select hickory	24,651	24,060	591		
Other hickory	15,851	14,453	1,398		
Pecan	575	575			
Hard maple	3,635	3,635			~~
Soft maple	53,320	44,464	1,384	7,472	
Ash	57,355	42,154	2,698	12,186	317
Cottonwood	212,554	196,103	2,572	13,879	
Basswood	27,185	24,807	1,571	807	
Elm	33,538	25,507	3,148	4,536	347
Black walnut	111,345	96,526	8,285	5,543	991
Willow	23,260	19,065	257	3,938	
Boxelder	9,787	5,924	1,818	1,129	916
Hackberry	133,687	112,814	8,586	11,413	874
Sycamore	64,790	56,268		8,522	
Other hardwoods	81,192	53,824	6,979	18,801	1,588

 $\frac{1}{4}$ -inch rule.

1,265,598

1,270,807

1,102,507

1,107,613

64,006

64,109

Total

All species

(Table 60 continued on next page)

5,033

5,033

94,052

94,052

		SOUTHEASTE	ERN UNIT		
		Commercial fo	rest land	Wooded s	
Canadan annua	Total	Growing-stock	Short-log	Growing-stock	Short-log
Species group	Total	trees	trees	trees	trees
SOFTWOODS	6 111	E 766	676		
Eastern redcedar	6,441	5,765	676		
Total	6,441	5,765	676		
HARDWOODS					
Bur oak	93,901	72,739	3,331	7,831	
Select white oak	32,394	29,907	2,487		
Other white oak	32,049	30,386	1,663		
Select red oak	86,460	79,173	2,654	4,633	
Other red oak	52,267	48,532	2,406	1,329	
Select hickory	20,227	18,987	1,240		
Other hickory	11,442	10,196	287	959	
Pecan	31,869	26,708	1,903	2,860	398
Hard maple	2,978	2,645	333		
Soft maple	47,363	43,370	781	3,212	
Ash	96,218	87,049	3,406	3,867	1,896
Cottonwood	45,351	39,358	1,244	4,749	
Basswood	956	956			
E1m	40,542	29,537	5,016	4,663	1,326
Black walnut	73,954	65,992	4,836	3,126	
Willow	18,858	16,467	637	1,368	386
Boxelder	13,231	6,077	1,488	3,996	1,670
Hackberry	158,074	137,513	5,239	15,322	
Sycamore	53,923	47,653	370	5,900	
Other hardwoods	38,647	29,536	2,677	4,598	1,836
Total	940,704	822,781	41,998	68,413	7,512
All species	947,145	828,546	42,674	68,413	7,512
		WESTERN	UNIT		
SOFTWOODS					
Eastern redcedar	1,220	w- ···		1,220	
Total	1,220			1,220	no no
HARDWOODS		<u> </u>			
Bur oak	129,884	89,091	4,144	36,649	
Select white oak					
Other white oak					
Select red oak					
Other red oak					
Select hickory					
Other hickory					
Pecan	760	760			
Hard maple					
Soft maple	406		406		
Ash	83,340	56,557	5,694	18,841	2,248
Cottonwood	449,505	374,599	9,888	65,018	
Basswood					
Elm	18,710	14,487	4,223		40.10
Black walnut	7,461	7,461			
Willow	14,957	12,369	1,461	1,127	
Boxelder	16,134	10,838	4,686		610
Hackberry	71,762	49,254	7,771	14,737	
Sycamore	1,710	1,710		·	
Other hardwoods	15,792	12,944	2,848		
Total	310,421	630,070	41,121	136,372	2,858
All species	811,641	630,070	41,121	137,592	2,858
specifes	2229011	000,070	,	227,932	-,550

Table 61.--Net volume of short-log trees on commercial forest land by species group and diameter class, Kansas, 1981

(In thousand cubic feet)

						Diameter	1	class (inches at	breast height)	ight)			
	LL	5.0-	7.0-	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	6.9	8.9	10.9	12.9	14.9	16.9	18.9	20.9	22.9	28.9	38.9	39.0+
SOFTWOODS													
Eastern redcedar	410	6	176	25	3	85	27	:	1	1	1	1	-
Total	410	6	176	52	3	85	27	:	1	1	1	;	:
HARDWOODS													
Bur oak	6,634	219	120	476	481	347	352	969	215	209	1,752	981	488
Select white oak	4,875	422	734	1,080	799	365	539	234	141	142	370	49	!
Other white oak	1,787	543	406	303	422	!	20	t i	ş	ŧ	63	!	;
Select red oak	1,755	104	156	278	353	371	160	;	159	95	26	56	1 1
Other red oak	2,097	176	446	234	644	135	211	147	;	,	104	3	;
Select hickory	928	231	159	62	1	246	53	;	114	63	1 2	!	;
Other hickory	934	125	178	184	270	51	!	;	!	,	126	!	;
Pecan	757	94	32	1	52	66	73	195	9/	133	;	;	:
Hard maple	125	36	!	1	83	;	;	;	;	1	;	;	!
Soft maple	1,078	1	i i	142	208	127	124	83	83	1	216	96	!
Ash	5,446	312	812	848	584	793	855	316	370	46	510	1 8	1
Cottonwood	4,011	1	178	217	1,140	150	438	116	280	317	184	684	307
Basswood	734	;	1	160	192	64	112	1	82	1	61	63	1
E1m	8,010	1,641	1,788	1,097	821	631	537	318	267	119	586	205	1
Black walnut	5,495	752	603	1,060	1,048	840	497	165	277	180	73	1 8	1
Willow	821	90	1	157	155	149	69	111	100	1	;	1	:
Boxelder	3,487	307	525	466	256	416	665	672	180	1	1	;	1
Hackberry	9,118	862	1,390	1,029	1,718	1,533	888	499	390	292	354	162	!
Sycamore	250	i	140	1	49	,	51	2 8	;	;	;	:	1
Other hardwoods	8,677	1,958	2,059	1,092	841	923	525	309	225	324	319	42	09
Total	67,019	7,862	9,726	8,895	10,125	7,240	6,200	3,761	2,959	2,315	4,774	2,307	855
All species	67,429	7,959	9,902	8,920	10,125	7,325	6,227	3,761	2,959	2,315	4,774	2,307	855
And in the last of													

Table 62.--Net volume of short-log trees on commercial forest land by species group and diameter class, Kansas, 1981

			uI)	thousand	(In thousand board feet) $\frac{1}{2}$	$[et)^{1/2}$					
	P P P P P P P P P P P P P P P P P P P		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dia	Diameter class	ss (inches	s at brea	at breast height		
Species group	All	9.0-	11.0-	13.0-	15.0- 16.9	17.0-	19.0-	21.0-22.9	23.0-28.9	29.0- 38.9	39.0+
SOFTWOODS Eastern redcedar	977	103	1	173	503	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	† † † † † † † †	5 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Total	779	103	1	173	503		† 9 † 9 † 1	7 1 8 7 9 1 1 1	1 8 9	1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
HARDWOODS Bur oak	16.080	i	2,480	1.379	1.419	1.830	589	1.583	4.580	1.657	563
Select white oak	12,269	į	5,010	1,447	3,329	707	396	267	920	193	2
Other white oak	1,994	1	1,715	1	159	;	1	Ť Ž	120	1 8	1 1
Select red oak	4,733	1	1,505	1,462	765	1	392	315	233	61	1
Other red oak	6,328	1	4,089	550	923	556	i	7	210	1 1	**
Select hickory	1,831	1		925	177	;	434	295	!	ę	;
Other hickory	1,685	1	882	287	1	ţ	ŧ	7	513	1	;
Pecan	1,903	!	203	302	243	869	71	386	1	1 7	;
Hard maple	333	ì	333	1	Ť	1	1	1	1	†	1
Soft maple	2,571	1	199	406	348	38	222	1 1	721	169	1
Ash		1	2,013	2,947	2,458	1,573	1,069	129	1,609	!	,
Cottonwood	13,704	1	4,272	009	1,380	421	1,170	1,768	999	2,210	1,217
Basswood	1,571	;	584	185	599	;	340	1	94	69	!
Elm	12,387	1	3,049	2,026	2,041	1,314	804	334	2,008	811	;
Black walnut	13,121	1	4,019	4,847	1,666	542	1,126	635	286	i	1
Willow	2,355	i	472	892	209	430	352	!	1	,	1
Boxelder	7,992	1	888	1,682	2,221	2,386	815	!	1	;	1
Hackberry	21,596	1	8,014	6,146	2,714	1,815	923	069	1,004	290	;
Sycamore	370	1	149	1	221	1	*	,	;	1	;
Other hardwoods	12,504	;	3,296	3,412	2,132	1,249	574	692	1,007	67	75
Total	147,125	6	43,643	29,495	22,704	13,559	9,277	7,094	13,971	5,527	1,855
All species	147,904	103	43,643	29,668	23,207	13,559	9,277	7,094	13,971	5,527	1,855

 $\frac{1}{2}$  International 1/4-inch rule.

Table 63.--Net volume of all live trees on wooded strips by species group and diameter class, Kansas, 1981

(In thousand cubic feet)

					Diam	eter cla	Diameter class (inches		at breast height				
	LL	-0.9	7.0-	-0.6	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	
Species group	classes	6.9	8.9	10.9	12.9	14.9	16.9	18.9	50.9	22.9	28.9	38.9	39.0+
SOFTWOODS													
Eastern redcedar	1,186	390	574	222		;	•	ŧ	;	;	;	;	;
Total	1,186	390	574	222	;	;	;	;	;	;	;	:	:
HARDWOODS													
Bur oak	11,408	61	!	136	148	141	;	1	;	638	10,284	1	:
Select white oak	382	289	!	93	1	;	;	;	;	;	1	;	;
Other white oak	1	;	;	;	!	;	ţ	1	1	;	;	!	1
Select red oak	1,915	157	66	292	379	157	!	;	1	;	556	!	;
Other red oak	961	89	49	104	172	481	1	į	87	;	;	;	;
Select hickory	177	177	;	;	;	1	;	1	1	1	;	;	i
Other hickory	815	51	274	268	222	. `	;	;	1	;	;	1	1
Pecan	921	;	1	136	135	319	3	331	;	;	;	;	;
Hard maple	34	34	;	;	1	;	1	;	1	}	;	!	;
Soft maple	3,878	364	311	392	98	j	247	316	406	924	775	45	;
Ash	18,985	2,132	2,350	2,300	2,162	1,694	3,103	640	1	4,604	i	ı	;
Cottonwood	25,747	159	424	389	908	587	1,320	1,167	1,488	3,205	2,980	13,054	69
Basswood	544	53	45	26	150	199	1	;	ì	3	1	1	;
Elm	9,382	2,556	1,392	1,970	919	910	216	814	!	45	8	1	;
Black walnut	4,540	770	894	536	414	957	241	648	i	48	32	1	;
Willow	1,980	146	185	63	624	51	1	96	1 8	788	27	ı	1
Boxelder	6,499	751	1,527	1,041	709	967	786	889	ř	,	;	1	;
Hackberry	15,704	2,201	1,670	1,353	1,722	1,400	932	685	1,632	483	3,549	77	Į.
Sycamore	4,694	;	74	84	1	1	213	1	1	1,072	1	3,251	;
Other hardwoods	11,180	1,181	1,249	1,185	952	1,107	745	951	964	8	1,081	1,765	;
Noncommercial species	5,854	1,338	1,309	1,052	539	152	277	487	;	700	1	,	!
Total	125,600	12,488	11,852	11,766	10,250	8,951	8,640	7,024	4,577	12,507	19,284	18,192	69
All species	126,786	12,878	12,426	11,988	10,250	8,951	8,640	7,024	4,577	12,507	19,284	18,192	69

Table 64.--Net volume of sawtimber on wooded strips by species group and diameter class, Kansas, 1981

1			1)	n thousand	(In thousand board feet) $\frac{1}{2}$	$et)\frac{1}{-}$					
					Diameter	Diameter class (inches at breast height	nes at brea	st height			
All 9.0- 1 classes 10.9			11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0-	23.0-	29.0-	39.0+
	000										
1,220 1,220	, 220	-	-	-	-		-	-	1	1	-
1,220 1,220	,220		1	1	* *	-	1 1	1		1	1
48,099	;		805	741	!	1 3	1	2,878	43,675	;	1
;	;		1	1	f	;	1	1	1	7	1
1	,		1	1	-	;	!	1	1 1	Ť	1
;	1,	1,	651	826	1	1	!	!	2,156	1	1
1	1		606	2,627	;	1	!	•	!	1	1
:	1		1	:	1 1	†	†	1	1	1	;
959	-		959	1	1	1	1 1	1	1	1	1
2,860 6	-	4,	564	861	!	1,335	;	;	!	†	1
1	;		1	;	-	1	1	1	1	1	1
10,684		~	168	1	1,094	1,589	1	4,321	3,212	1	;
1	φ 1	ထ်	8,915	5,294	5,293	1,818	!	13,574	1 1	1	1
;	4,	4	365	2,965	6,724	4,939	7,033	13,539	7,665	36,416	1
807 8		ω	307	1	1	1 1	1		1	1	1
!	7	7	177	2,517	2,631	3,574	Î	1	7 †	†	;
:	1,0		978	4,448	;	2,243	1	1	i	,	1
i	2,	7,	234	372	1	373	1 1	3,454	!	1 1	1
i	1,1	1,1	59	920	206	2,519	1	7	1	ŧ	1
41,472 7,354	7,3	7,3	54	6,112	3,107	3,468	7,899	;	13,158	374	-
i			!	*	1,082	1	;	4,818	1	8,522	!
23,399 1,		٦,	1,667	3,056	1,252	4,420	4,579	;	1	8,425	1
		34	34,382	30,389	22,090	26,278	19,511	42,584	998,69	53,737	1
300,057 1,220 34,3	1 1	34,3	382	30,389	22,090	26,278	19,511	42,584	998'69	53,737	1

 $\frac{1}{2}$  International 1/4-inch rule.

Table 65.--Met volume of short-log trees on wooded strips by species group and diameter class, Kansas, 1981

(In thousand board feet) $\frac{1}{2}$ 

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					Dia	meter clas	s (inches	at breas	t height)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	* * * * * * * * * * * * * * * * * * * *
Species group	A11 classes	9.0-	11.0-	13.0-	15.0-	15.0- 17.0- 1 16.9 18.9	19.0-	19.0- 21.0- 20.9 22.9	23.0- 28.9	29.0- 38.9	39.0+
SOFTWOODS Eastern redcedar	1	;	† ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	1 1 1 1 1 1	,	1 1 1	; ; ; ; ; ;	1 1 1 1 1 1 1 1 1 1	1 7 7	1 1	;
Total	1			* * * * * * * * * * * * * * * * * * * *	;		;	1 1	* * *	1 1 1 1 1	1 1 1
HARDWOODS	***************************************	1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Bur oak	;	h T	;	i	;	1 9	;	1	;	ŧ	;
Select white oak	1	;	;	;	;	;	;	î	1	1 1	į
Other white oak	1	1	1	1	1	3 7	ì	•	7 9	;	•
Select red oak	1 9	1	*	1	;	,	;	;	p b	t 1	,
Other red oak	;	;	1		;	i	1	ļ	1	1	;
Select hickory	:	1	•	•	7	1	1	1	1	-	;
Other hickory	1	•	1	1	1 1	1 1	1	8 7	ť	*	,
Pecan	398	;	;	398	1	*	1	*	1 1	1 1	ţ
Hard maple	1	1 7	1	1	1	†	;	* *	;	-	1
Soft maple	;	1	1	1	1	1	1	1 1	;	1	1 1
Ash	4,462	:	089	1	2,248	643	1	891	;	1	!
Cottonwood	1	;	ì	;	1	-	* †	;	,	;	;
Basswood	1	;	*	ŧ	,	,	;	ţ	ļ	!	;
Elm	1,673	1	343	691	539	!	1	;	;	;	Ť S
Black walnut	166	1	9	313	678	1	1	t 3	!	;	;
Willow	386	1	386	1	Į,	1	;	ţ	9	;	;
Boxelder	3,196	1	1,246	280	757	913	ŀ	;	,	1	*
Hackberry	874	1	325	1	549	T t	*	1	,	;	;
Sycamore	!	;	;	1	* 1	1	;	1	1	ł	•
Other hardwoods	3,424	1	1,271	421	759	1	;	;	973	1	;
Total	15,404	;	4,251	2,103	5,630	1,556	;	891	973	1	,
All species	15,404	;	4,251	2,103	5,630	1,556	1	891	973	1	ţ
		!	, , , , , , , ,	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	7 7 7 9 9	1 1 1 1 1 1 7					

 $\frac{1}{2}$  International 1/4-inch rule.

Table 66.--Net volume of growing stock on wooded strips by species group and forest type, Kansas, 1981

(In thousand cubic feet)

						Forest type	type	1			
		Eastern		Post-	Upland				Lowland	Upland	
	All	redcedar-	0ak-	blackjack	plains	Elm-ash-			plains	elm-ash-	Non-
Species	types	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
SOFTWOODS				† † † † † †	7 7 4 4 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	† † † † †		† † † † †	1	
Eastern redcedar	1,077	1,058	-	;	1	7	*	4	1	1	19
Total	1,077	1,058	1	1	1	;	•	;	1	;	19
HARDWOODS					r f f f 7 7	* * * * * * * * * * * * * * * * * * *				, p p p p p p p p p p p p p p p p p p p	
Bur oak	11,302	;	231	;	*	10,433	1	1	;	638	Î
Select white oak	258	!	258	;	;	1 1	;	;	;	7	î
Other white oak	1	*	1	;	ŧ	;	;	1	ļ	;	1
Select red oak	1,658	:	305	;	250	887	;	1	;	1	216
Other red oak	874	1	414	t 1	:	460	;	Ť	;	*	ŧ
Select hickory	177	1	1	* *	,	13	I	;	147	17	1
Other hickory	733	1	384	3	;	285	;	1	54	1	\$ \$
Pecan	798	1	1	1	,	798	1	ř	1	1	1 1
Hard maple	1	1	†	†	,	;	1 1	î Î	;	;	1
Soft maple	2,953	1	1	•	9	2,905	;	1	,	1	48
Ash	11,081	1,814	1	-	1	6,848	1	P	949	1,434	36
Cottonwood	24,032	14,009	1	;	1	2,279	3,676	266	i	1,583	1,488
Basswood	344	!	;	;	344	!	,	9	;	,	1
Elm	5,154	;	72	;	274	2,266	1	:	583	1,868	91
Black walnut	3,367	!	117	;	82	403	i i	1	2,694	1	69
Willow	1,474	!	;	;	43	131	i	168	1	136	966
Boxelder	2,175	1	;	;	;	1,341	!	;	834	;	;
Hackberry	12,709	1	381	;	287	6,461	}	155	4,673	752	i
Sycamore	4,657	1	†	;	;	;	;	*	1,322	3,335	i
Other hardwoods	6,720	!	147	;	545	647	:	16	1,386	3,943	36
Total	90,466	15,823	2,309	-	1,828	36,157	3,676	1,336	12,652	13,706	2,979
All species	91,543	16,881	2,309	1	1,828	36,157	3,676	1,336	12,652	13,706	2,998
	the same of the same of the same of			* ** * * * * * * * * * * * * * * * * * *		the same of the same of	· · · · · · · · · · · · · · · · · · ·	* * * * * * * * *			****

Table 67.--Net volume of sawtimber on wooded strips by species group and forest type, Kansas, 1981

(In thousand board feet) $\frac{1}{2}$ 

		1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Forest type	type	1		1	
	All	Eastern redcedar-		Post- blackjack	Upland plains	Elm-ash-		† † † †	Lowland	Upland elm-ash-	Non-
Species	types	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
SOFTWOODS Fastern redcedar	1 220	1 220	1	1	;		;	1			
	1 220	1 220	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *						
lotal	1,220	1,220	1		0 9			: !	;	;	
HARDWOODS											
Bur oak	48,099	;	741	:	;	44,480	;	;	;	2,878	!
Select white oak	1	;	;	ì	;	;	1	1	;	;	,
Other white oak	;	;	*	;	1	9	1	ţ	;	;	;
Select red oak	4,633	1	;	;	,	3,531	;	1	1	!	1,102
Other red oak	3,536	1	1,329	1	1	2,207	1	1	7 2	;	;
Select hickory	1	9 8	,	1	,	1	*	;	1	;	;
Other hickory	959	:	,	;	;	656	;	1	1	*	;
Pecan	2,860	1	;	:	1	2,860	;	•	;	1	1
Hard maple	}	;	;	;	;	;	1	;	;	1	;
Soft maple	10,684	1	;	;	;	10,684	1	1	;	;	1
Ash	34,894	8,180	;	;	;	19,701	1	;	3,413	3,600	1 1
Cottonwood	83,646	41,355	1	}	1	7,182	16,629	4,187	1	7,260	7,033
Basswood	807	;	;	;	807	1	;	1	;	;	;
Elm	9,199	1	;	1	477	2,631	1	1	1,297	4,794	1
Black walnut	8,669	!	;	ŧ	•	847	1	;	7,367	1	455
Willow	6,433	-	;	1	1	623	1	745	i	484	4,581
Boxelder	5,125	1	;	1	;	2,008	1	*	3,117	;	;
Hackberry	41,472	1	1,037	;	1	24,172	1	374	12,556	3,333	1
Sycamore	14,422	1	•	-	1	1	;	1	5,900	8,522	;
Other hardwoods	23,399	1	413	-	2,093	1,252	1	;	3,991	15,650	-
Total	298,837	49,535	3,520		3,377	123,137	16,629	5,306	37,641	46,521	13,171
All species	300,057	50,755	3,520	+	3,377	123,137	16,629	5,306	37,641	46,521	13,171

 $\frac{1}{2}$  International 1/4-inch rule.

Table 68.--Net annual growth of growing stock on commercial forest land by softwoods and hardwoods, Kansas, 1964 and 1980

(In thousand cubic feet)

Species	19641/	1980
Softwoods		471
Hardwoods	22,100	22,759
All species	22,100	23,230

 $<sup>\</sup>frac{1}{F}$  Figures have been adjusted from those published after the 1965 survey to conform to 1980 volumes because of changes in survey definitions and procedures.

Table 69.--Net annual growth of growing stock on commercial forest land by species group and Forest Survey Unit, Kansas, 1980

	_	Fore	est Survey U	nit
Species group	All Units	North- eastern Unit	South- eastern Unit	Western Unit
SOFTWOODS				
Eastern redcedar	471	271	197	3
Total	471	271	197	3
HARDWOODS				
Bur oak	1,251	576	433	242
Select white oak	779	485	294	
Other white oak	594	43	551	
Select red oak	1,467	674	793	
Other red oak	611	282	329	
Select hickory	467	341	126	
Other hickory	470	341	129	
Pecan	254	4	247	- 3
Hard maple	94	58	36	
Soft maple	941	423	518	
Ash	1,958	403	892	663
Cottonwood	2,525	1,023	179	1,323
Basswood	199	166	33	
Elm	678	224	538	-84
Black walnut	2,167	926	1,010	231
Willow	382	138	131	113
Boxelder	762	226	68	468
Hackberry	4,454	1,755	2,184	515
Sycamore	590	268	314	8
Other hardwoods	2,116	1,032	708	376
Total	22,759	9,388	9,513	3,858
All species	23,230	9,659	9,710	3,861

Table 70.--Net annual growth of sawtimber on commercial forest land by species group and Forest Survey Unit, Kansas, 1980

		For	est Survey U	nit
	•	North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	90	95	-5	
Total	90	95	-5	
HARDWOODS				
Bur oak	4,255	1,738	1,408	1,109
Select white oak	2,041	- 1,772	269	
Other white oak	460	102	358	
Select red oak	7,275	3,977	3,298	
Other red oak	1,179	902	277	
Select hickory	953	796	157	
Other hickory	1,060	479	581	
Pecan	1,113	1	1,103	9
Hard maple	607	66	541	
Soft maple	3,170	1,462	1,708	
Ash	4,768	870	3,299	599
Cottonwood	8,773	2,432	1,003	5,338
Basswood	360	354	6	
E1m	-2,234	-2,142	763	-855
Black walnut	5,911	2,892	2,994	25
Willow	2,742	1,860	444	438
Boxelder	1,642	728	476	438
Hackberry	13,246	5,463	6,444	1,339
Sycamore	2,403	892	1,482	29
Other hardwoods	4,223	2,782	984	457
Total	63,947	27,426	27,595	8,926
All species	64,037	27,521	27,590	8,926

 $<sup>\</sup>frac{1}{I}$ International  $\frac{1}{4}$ -inch rule.

Table 71.--Net annual growth of growing stock on commercial forest land by species group and ownership class, Kansas, 1980

			_	(	Ownershi	p class		
Species group	All classes	National forest	Misc. federal	Indian	State	County and municipal	Farmer	Misc. private
SOFTWOODS								
Eastern redcedar	471		2				325	144
Total	471		2				325	144
HARDWOODS								
Bur oak	1,251		164		4		715	368
Select white oak	779		15		-	7	314	443
Other white oak	594		18				432	144
Select red oak	1,467	,	27			,	891	549
Other red oak	611		6		22		270	313
Select hickory	467		13		4		252	198
Other hickory	470		8				309	153
Pecan	254	** ·*		***	2		113	139
Hard maple	94						29	65
Soft maple	941		22		75	42	567	235
Ash	1,958		40		25		1,347	546
Cottonwood	2,525		276	2	159		1,656	432
Basswood	199		2				125	. 72
Elm	678		52	3	5	2	519	97
Black walnut	2,167		50		2		1,162	953
Willow	382		2		4	23	248	105
Boxelder	762					10	475	277
Hackberry	4,454		203	7	2	54	2,828	1,360
Sycamore	590		42				447	101
Other hardwoods	2,116		78	13	. 12	14	1,336	663
Total	22,759		1,018	25	316	152	14,035	7,213
All species	23,230		1,020	25	316	152	14,360	7,357

Table 72.--Net annual growth of sawtimber on commercial forest land by species group and ownership class, Kansas, 1980

					Ownersh	ip class		
Species group	All classes	National forest	Misc. federal	Indian	State	County and municipal	Farmer	Misc. private
SOFTWOODS								
Eastern redcedar	90						70	20
Total	90				/ 44		70	20
HARDWOODS								
Bur oak	4,255		104		11		2,954	1,186
Select white oak	2,041		30				1,395	616
Other white oak	460		39				355	66
Select red oak	7,275		627		W 00		2,689	3,959
Other red oak	1,179				116		158	905
Select hickory	953		3		8		305	637
Other hickory	1,060						93	967
Pecan	1,113				6		807	300
Hard maple	607						308	299
Soft maple	3,170		95		250	237	1,177	1,411
Ash	4,768		112		420		3,323	913
Cottonwood	8,773		843	2			6,435	1,493
Basswood	360		9				240	111
Elm	-2,234		-14			7	-1,392	-835
Black walnut	5,911		211		13		3,560	2,127
Willow	2,742					187	2,155	400
Boxelder	1,642					367	685	590
Hackberry	13,246	~-	340	13	9	120	8,437	4,327
Sycamore	2,403		148				1,938	317
Other hardwoods	4,223	W 00	111	44	33	70	2,131	1,834
Total	63,947		2,658	59	866	988	37,753	21,623
All species	64,037		2,658	59	866	988	37,823	21,643

 $<sup>\</sup>frac{1}{I}$ International  $\frac{1}{4}$ -inch rule.

Table 73.--Net annual growth of growing stock on commercial forest land by species group and forest type, Kansas, 1980 (In thousand cubic feet)

						Forest type	type				
		Eastern		Post-	Upland	i			Lowland	Upland	:
Charjac	All	redcedar-	Oak- hickorv	Dlackjack oak	plains	Cottonwood	Cottonwood	Willow	plains	locust	Non-
SOFTWOODS	andra		6000								
Eastern redcedar	471	170	22	;	23	2	1	1	102	146	9
Total	471	170	22	-	23	2	1	1	102	146	9
HARDWOODS											
Bur oak	1,251	2	430	80	163	99	1.	;	574	∞	П
Select white oak	779	-23	632	1	17	122	1	;	21	6	;
Other white oak	594	e	111	470	6	!	1	1	;	-1	8
Select red oak	1,467	2	1,205	24	89	43	į	!	88	36	1
Other red oak	611	1	457	83	9	-24	63	1 1	13	13	:
Select hickory	467	2	389	-15	7	36	1	ŧ	32	16	1
Other hickory	470	1 5	329	7	27	52	1	;	78	4	ı
Pecan	254	1	183	1	15	42	!	;	ო	11	1
Hard maple	94	;	37	1 8	1	31	:	1	11	15	I
Soft maple	941	;	11	1	;	754	2	;	167	7	8
Ash	1,958	;	152	;	18	1,260	105	6	268	142	4
Cottonwood	2,525	;	39	;	7	261	2,054	12	100	16	36
Basswood	199	į	22	!	22	9	4	1	9	14	1
Elm	678	2	205	1	160	467	46	1	-369	160	7
Black walnut	2,167	21	369	es	293	272	24	;	1,117	99	က
Willow	382	!	2	;	က	334	۳-	24	6	2	2
Boxelder	762	;	7	;	10	594	23	1	122	4	2
Hackberry	4,454	2	312	1	355	763	13	;	2,939	46	23
Sycamore	290	1	09	φ	10	223	10	ŀ	277	16	2
Other hardwoods	2,116	2	201	3	71	834	18	:	099	304	23
Total	22,759	13	5,189	577	1,294	6,108	2,359	45	6,176	892	106
All species	23,230	183	5,211	277	1,317	6,110	2,359	45	6,278	1,038	112

Table 74.--Net annual growth of sawtimber on commercial forest land by species group and forest type, Kansas, 1980

(In thousand board feet) $\frac{1}{2}$ 

						Forest type	type				
	All	Eastern redcedar-	0ak -	Post- blackjack	Upland	Elm-ash-			Lowland plains	Upland elm-ash-	Non-
Species	types	hardwood	-	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
SOFTWOODS											
Eastern redcedar	06	5	33	8	*	!	;	;	1	46	9
Total	06	5	33		1	1	1	•	1	46	9
HARDWOODS											
Bur oak	4,255	9	1,675	1	179	312	-	1	2,055	28	3 8
Select white oak	2,041	53	1,797	9	52	20	!	1	81	29	1
Other white oak	460	က	232	186	36			i	1	m	;
Select red oak	7,275	1	5,431	40	71	202	-	î	1,440	98	;
Other red oak	1,179	i	1,193	83	15	-200	!	-	46	42	;
Select hickory	953	1	412	2	23	106	!	1.	392	18	;
Other hickory	1,060	;	268	;	*	40	!	1	449	m	;
Pecan	1,113	1	887	1	3	187	!	1	6	30	;
Hard maple	607	8	538	;	1	47	;	1	;	22	8
Soft maple	3,170	1 8	219	;	!	1,945	13	1	985	11	;
Ash	4,768	ì	596	1	53	3,035	47	14	1,309	27	11
Cottonwood	8,773	!	125	1	24	456	7,600	09	320	51	107
Basswood	360	;	170	;	86	32	!	ì	14	28	3
Elm	-2,234	1	-126	1	81	-419	18	!	-1,964	160	15
Black walnut	5,911	31	629	;	391	1,040	396	1	3,226	148	-
Willow	2,742	;	7	1	;	2,493	106	80	23	13	28
Boxelder	1,642	1	6	;	367	921	38	;	307	;	t t
Hackberry	13,246	;	620	9	1,336	2,295	95	;	8,774	29	64
Sycamore	2,403	Î	489	-	36	558	27	1	1,219	99	∞
Other hardwoods	4,223	1 8	421	2	107	1,660	12	-	1,087	914	17
Total	63,947	94	15,634	328	2,806	14,765	8,349	154	19,799	1,768	250
All species	64,037	66	15,667	328	2,806	14,765	8,349	154	19,799	1,814	256

 $\frac{1}{2}$  International 44-inch rule.

Table 75.--Net annual growth of growing stock on commercial forest land by forest type and stand-age class, Kansas, 1980

(In thousand cubic feet)

	A11						St	Stand-age class (years	lass (yea	ırs)				
Forest type	classes	0-10 11	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-140	141+
Eastern redcedar-hardwood	183	38	70	}	-25	;	64	;	9 9	î	9	;	36	;
Oak-hickory	5,211	54	140	406	9/9	621	711	815	789	300	439	236	109	15
Post-blackjack oak	577	က	2	-1	101	362	10	9	7	48	1	39	ţ	;
Upland plains hardwoods	1,317	33	178	566	220	144	222	164	23	56	i	7	34	1
Elm-ash-cottonwood	6,110	121	594	215	672	291	1,466	1,109	952	183	191	316	į	3 8
Cottonwood	2,359	9	2	119	176	191	305	714	241	129	315	161	:	!
Willow	45	2	53	01	1	1	4	1	;	!	1	;	;	;
Lowland plains hardwoods	6,278	16	384	181	555	227	1,142	1,555	1,180	469	319	119	10	46
Upland elm-ash-locust	1,038	165	193	139	215	16	42	42	123	40	38	1	52	;
Nonstocked	112	15	7	52	13	i	40	2	9			;	;	:
All types	23,230	528	1,599	1,360	2,503	1,852	4,006	4,410	3,321	1,196	1,302	878	214	61

Table 76.--Net annual growth of sawtimber on commercial forest land by forest type and stand-age class, Kansas, 1980

(In thousand board feet) $\frac{1}{2}$ 

	All						St	Stand-age class (years	lass (yea	irs)				
Forest type	classes 0-10 11-20	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	91-100 101-120	121-140	141+
Eastern redcedar-hardwood	66	48	16	1	16	1	-57	;	1	1		;	9/	1
Oak-hickory	15,667	521	00	946	1,855	1,237	1,988	2,049	2,556	1,236	2,194	743	288	46
Post-blackjack oak	328	7	!	;	11	113	14	6	-19	112	!	81	!	,
Upland plains hardwoods	2,806	23	165	124	929	87	390	898	73	64	1	20	63	1
Elm-ash-cottonwood	14,765	509	505	709	460	1,558	4,620	3,588	1,698	126	927	368	i	;
Cottonwood	8,349	1	∞	320	-16	440	1,675	2,911	1,204	371	954	482	!	;
Willow	154	80	113	11	1	;	22	1	1	;	;	i	;	1
Lowland plains hardwoods	19,799	273	357	569	1,912	1,095	3,821	5,380	3,377	1,552	853	493	30	87
Upland elm-ash-locust	1,814	202	216	274	180	56	481	97	70	110	66	1	- 59	1
Nonstocked	526	9/	13	-	17	-	105	28	14	3	1	1	1	1
All types	64,037	64,037 1,367 1,3	1,398	2,953	5,364	4,556	13,059	14,930	8,973	3,574	5,027	2,187	516	133

 $\frac{1}{2}$  International 1/4-inch rule.

Table 77.--Net annual growth of growing stock on commercial forest land by forest type, stand-size class, and basal-area class, Kansas, 1980 (In thousand cubic feet)

ar-hardwood  ar-hardwood  aling  alin	classes         0-10         11-20         21-30         31-40         41-50         51-60         61-70         71           -7         -7         -7         -9         -6         20         66         -25           108         -7         9         6         20         66         -25           108         -7         9         6         20         66         -25           1183         -7         1         9         6         20         66         -25           2,005         -7         -7         9         6         20         66         -25           2,005         -7         -7         9         6         20         66         -25           438         -7         1         137         23         438         438         577           438         -7         -1         137         23         438         438         577           466         -7         -7         -7         -7         -7         -7         -7           466         -7         -7         -7         -7         -7         -7         -7           44,270         -7	Forest type and All						Ba	sal-area	Basal-area class (square	square 1	feet per	acre)				
2         2         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	2,831		'				31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
2,831	82 <td< td=""><td>cedar-hardwood</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	cedar-hardwood															
1,0	108 <t< td=""><td></td><td></td><td>:</td><td>;</td><td>;</td><td>;</td><td>1</td><td>;</td><td>;</td><td>;</td><td>;</td><td>;</td><td>82</td><td>1</td><td>;</td><td>;</td></t<>			:	;	;	;	1	;	;	;	;	;	82	1	;	;
2,831          7         9         6         20         66                                                                                                      <	108          7         9         6         20         66            183          7         9         6         20         66         -25           2,831           -1         36         176         271           2,005         -7         -1         101         8         214         39         22           375         -1         101         8         214         39         22           5,211         -37         -1         137         23         438         577           438           -20           -1         577           438           -2           -3         33           466           -2          -1         33         31           771          -18           -3         31           771          -16         25          -18           63           1,317          -17         25         73 <td></td> <td></td> <td>:</td> <td>;</td> <td>!</td> <td>;</td> <td>;</td> <td>;</td> <td>-25</td> <td>18</td> <td>1</td> <td>!</td> <td>1</td> <td>;</td> <td>;</td> <td>;</td>			:	;	!	;	;	;	-25	18	1	!	1	;	;	;
2,831          7         9         6         20         66         -25         18          82          82           82           84         657         141         25         84         667         149         22,005             1         36         176         271         414         257         84         627         141         141         257         84         627         141         141         141         155         37	2,831         36       16       188       223       284         2,005         -1       36       176       271         2,005         -1       36       176       271         5,211       -37       -1       137       23       438       438       577         438         -20        -1       13       22         60         -2        -1       3       3         577         -2        -1       3       3         60           -2        -1       3         721 </td <td>seedling</td> <td></td> <td>;</td> <td>7</td> <td>6</td> <td>9</td> <td>20</td> <td>99</td> <td>;</td> <td>;</td> <td>:</td> <td>!</td> <td>;</td> <td>!</td> <td>!</td> <td>;</td>	seedling		;	7	6	9	20	99	;	;	:	!	;	!	!	;
2,831 </td <td>2,831       36     16     188     223     284       2,005         136     273     221       375     -37     -1     101     8     214     39     221       5,211     -37     -1     137     23     438     438     577       438      -20      -1     15     6       60       -20      -1     15     6       60       -20       15     6       760       -20        3       721               130                                               </td> <td>spu</td> <td>183</td> <td></td> <td>7</td> <td>6</td> <td>9</td> <td>20</td> <td>99</td> <td>-25</td> <td>18</td> <td>:</td> <td>;</td> <td>82</td> <td>:</td> <td>;</td> <td>1</td>	2,831       36     16     188     223     284       2,005         136     273     221       375     -37     -1     101     8     214     39     221       5,211     -37     -1     137     23     438     438     577       438      -20      -1     15     6       60       -20      -1     15     6       60       -20       15     6       760       -20        3       721               130	spu	183		7	6	9	20	99	-25	18	:	;	82	:	;	1
2,831           36         16         188         223         284         265         810         230         640         139           2,005             -1         36         176         271         414         255         84         627         141           375         -37         -1         101         8         214         39         22         31         1,267         280           438          -2          -2          -3         35         81         11,267         280           60           -2          -2          -2          -2	2,831         36       16       188       223       284         2,005         -1       36       176       271         375       -37       -1       101       8       214       39       22         438         -20        -1       15       6         60         -20        -1       3       3         577         -2        -1       3       3         60           -1       3       3         721         -18        -18       9         721         18       9        63         130         -18        18       9         4,270         -18        63       147       112         768       -24       7       93       145       401       97       -71         86 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																
2,005           -1         36         176         271         414         257         84         627         141           375         -37         -1         101         8         214         39         22         1         25         3	2,005        -1       36       176       271         5,211       -37       -1       101       8       214       39       22         5,211       -37       -1       137       23       438       438       577         438        -20        -1       15       6         60        -2        -3       3         577        -2        -3       3         721        -2        -3       3         721        -2        -3       3         130         -18           130          3       31         4,66         -18        18       9         130         18       143       109         130         18       143       109         1,072         17       25       73       145       147       112         6,110			!	,	36	16	188	223	284	592	810	230	640	139	;	;
375         -37         -1         101         8         214         39         22         1         25         3	375         -37         -1         101         8         214         39         22           5,211         -37         -1         137         23         438         438         577           438                  60             3         3         3           577              3         3         3           466               3         3         3           721            18         143         109         3           130            12         9         25          63         43         109           1,317           17         25         73         170         203           4,270           17         24         7         145         401         97         -71           6,110         -24         7			!	;	;	7	36	176	271	414	257	84	627	141	1	*
5,211         -37         -1         137         23         438         436         577         680         1,092         317         1,267         280           79          -20          -1         -3         -6         47         31 <td>5,211       -37       -1       137       23       438       577         438                                                                                                            </td> <td></td> <td></td> <td>37</td> <td>7</td> <td>101</td> <td>œ</td> <td>214</td> <td>33</td> <td>22</td> <td>1</td> <td>52</td> <td>က</td> <td>-</td> <td></td> <td></td> <td>;</td>	5,211       -37       -1       137       23       438       577         438			37	7	101	œ	214	33	22	1	52	က	-			;
79           -20           -15         6         47         31	79        -20        -1       5         438           3       3         60          3       3       3         577        -18        18       143       109         721         18       143       109         130         18       143       109         1310         17       25       73       170       203         4,270         17       25       73       170       203         1,072         17       25       73       170       203         6,110       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060                2,359			37	-1	137	23	438	438	217	089	1,092	317	1,267	280	:	1
79          -20          -15         6         47         31	438        -20        -15       6         50          3       3         577        -18        18       143       109         721        12       9       25        63         1,317        17       25       73       170       203         4,270         17       25       73       170       203         1,072         17       25       73       170       203         6,110       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060                       69        69        63	ack oak															
438 <t< td=""><td>438                                             18       9          63          63          109          63          63          110              63                 63                                   &lt;</td><td></td><td></td><td>;</td><td>;</td><td>-20</td><td>1</td><td>*</td><td>15</td><td>9</td><td>47</td><td>3</td><td>1</td><td>;</td><td>;</td><td>;</td><td>;</td></t<>	438                                             18       9          63          63          109          63          63          110              63                 63                                   <			;	;	-20	1	*	15	9	47	3	1	;	;	;	;
60          -         3         3           52                                           19                                          63         6         115 <td>60         3       3         577        -18        -18       9         466         16       30       27       31         721        12       9       25        63         130        17       25       73       170       203         4,270         17       25       73       170       203         1,072         17       25       73       170       203         6,110       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060          6         89          2,360          6         89          2,359         6       13       6       61       193      </td> <td>£</td> <td>438 -</td> <td></td> <td>;</td> <td>;</td> <td>9</td> <td>3</td> <td>-1</td> <td>!</td> <td>35</td> <td>83</td> <td>91</td> <td>210</td> <td>19</td> <td>;</td> <td>;</td>	60         3       3         577        -18        -18       9         466         16       30       27       31         721        12       9       25        63         130        17       25       73       170       203         4,270         17       25       73       170       203         1,072         17       25       73       170       203         6,110       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060          6         89          2,360          6         89          2,359         6       13       6       61       193	£	438 -		;	;	9	3	-1	!	35	83	91	210	19	;	;
466           -18          -18         9         82         114         143         210         19           721           16         30         27         31         144         131           87           721           18         143         109         9         119         154         164           87           130           18         143         109         9         119            87           1,317           17         25         73         170         203         159         265         154         164	466         -18        18       30       27       31         721        -5        18       143       109         130        12       9       25        63         1,317        17       25       73       170       203         4,270         42       147       112         768       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060        -       -       -       694       428       371         2,060        -       -       -       -       -       -       -         2,060        -       -       6       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	seedling			;	2	1	1	က	က	1	1	52	}	8	!	8
466          16       30       27       31       144       131         87         721         18       143       109       9       119       154       164         87         130         18       143       109       9       119       154       164	466          16       30       27       31         721         12       9       25        63         130        12       9       25        63         1,317        17       25       73       170       203         4,270         17       25       173       170       203         1,072         42       147       112         768       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060        4       13        61       104          261         6        89          2,359        6       13       6       61       193	spu		!	1	-18	1	1	18	6	82	114	143	210	19	:	!
466          16       30       27       31       144       131         87         721         18       143       109       9       119       154       164         87         130         12       9       25        63       6       15	466          16       30       27       31         721         18       143       109         130        12       9       25        63         1,317        17       25       73       170       203         4,270         17       25       184       330         1,072         14       12       112         768       -24       7       93       145       401       97       -71         6,110       -24       7       139       216       694       428       371         2,060        4       13        61       104          2,10        4       13        61       194          38        6       13       6       61       193	ns hardwoods															
ng         721          5          18         143         109         9         119         154         164               13         159         6         15 <th< td=""><td>ng 721 5 18 143 109  130 17 25 73 170 203  1,317 17 25 73 170 203  4,270 50 71 251 184 330  1,072 4 42 147 112  6,110 -24 7 139 216 694 428 371  2,060 4 13 61 104 89  2,050 6 13 6 61 193</td><td></td><td>466</td><td>;</td><td>!</td><td>1</td><td>16</td><td>30</td><td>27</td><td>31</td><td>144</td><td>131</td><td>;</td><td>;</td><td>87</td><td>;</td><td>;</td></th<>	ng 721 5 18 143 109  130 17 25 73 170 203  1,317 17 25 73 170 203  4,270 50 71 251 184 330  1,072 4 42 147 112  6,110 -24 7 139 216 694 428 371  2,060 4 13 61 104 89  2,050 6 13 6 61 193		466	;	!	1	16	30	27	31	144	131	;	;	87	;	;
ng         130          -12         9         25          63         6         15                                          15         25         73         170         203         159         265         245         479         490         924           1,072           -4          42         147         112         61         114         13         587            1,072           -4          42         147         112         61         148         37         84         7         28              6,110         -24         7         139         216         694         428         371         842         366         520         1,077         924	ng 130 12 9 25 63  1,317 17 25 73 170 203  4,270 50 71 251 184 330  1,072 4 42 147 112  768 -24 7 93 145 401 97 -71  6,110 -24 7 139 216 694 428 371  2,060 4 13 61 104 89  2,359 6 13 6 61 193	٤		!	;	2	!	18	143	109	6	119	154	164	1	!	,
1,317        -1       17       25       73       170       203       159       265       154       164       87         4,270         -4        42       147       112       61       114       13       587          1,072        -4        42       147       112       61       114       13       587          1,072        -4        -4        -4        -71       85       7       28           768       -24       7       139       216       694       428       371       842       366       520       1,077       924         2,060        4       13        6        6	1,317 17 25 73 170 203  4,270 50 71 251 184 330  1,072 4 42 147 112  1,072 4 42 147 112  6,110 -24 7 139 216 694 428 371  2,060 4 13 61 104 89  2,060 4 13 61 104 89  2,359 6 13 6 61 193	seedl ing		-	;	12	6	52	-	63	9	15		1		-	-
4,270       50     71     251     184     330     696     245     479     490     924       1,072      -4      42     147     112     61     114     13     587        768     -24     7     93     145     401     97     -71     85     7     28        6,110     -24     7     139     216     694     428     371     842     366     520     1,077     924       2,060      4     13      61     104      305     163     161     483     289       261                 89       30      163          89       30      163         89       30      163         2,359      6     13     6     61     193      314     193     324     483     289	A,270 50 71 251 184 330 1,072 4 42 147 112 768 -24 7 93 145 401 97 -71 6,110 -24 7 139 216 694 428 371 2,060 4 13 61 104 89 2,359 6 13 6 61 193		.317		9 8	17	52	73	170	203	159	265	154	164	87	:	1
r     4,270       50     71     251     184     330     696     245     479     490     924       er     1,072       -4      42     147     112     61     114     13     587        ands     768     -24     7     93     145     401     97     -71     85     7     28         ands     6,110     -24     7     139     216     694     428     371     842     366     520     1,077     924       r     2,060      4     13      61     104      305     163     161     483     289       r     261                   der     2,359      6     13     6     61     193      314     193     324     483     289	r 4,270 50 71 251 184 330 er 1,0724 42 147 112 & seedling 768 -24 7 139 216 694 428 371 ands 6,110 -24 7 139 216 694 428 371 r 2,060 4 13 61 104 89 er 261																
er     1,072      -4      42     147     112     61     114     13     587        å seedling     768     -24     7     93     145     401     97     -71     85     7     28         ands     6,110     -24     7     139     216     694     428     371     842     366     520     1,077     924       r     2,060      4     13      61     104      305     163     161     483     289       er     261                  å seedling      6     13     6     61     193            ands      6     13     6     61     193           13                ands                 6	er     1,072      -4      42     147     112       & seedling     768     -24     7     93     145     401     97     -71       ands     6,110     -24     7     139     216     694     428     371       r     2,060      4     13      61     104        er     261        89        ands     2,359      6     13     6     61     193		- 072,	!	;	20	71	251	184	330	969	245	479	490	924	550	1
& seedling     768     -24     7     93     145     401     97     -71     85     7     28         ands     6,110     -24     7     139     216     694     428     371     842     366     520     1,077     924       r     2,060      4     13      61     104      305     163     161     483     289       er     261         6             ands      6     13     6     61     193      314     193     324     483     289	# seedling 768 -24 7 93 145 401 97 -71 ands 6,110 -24 7 139 216 694 428 371 r 2,060 4 13 61 104 8 seedling 38 2 6 13 6 61 193 ands 2,359 6 13 6 61 193		,072	;	;	-4	;	45	147	112	19	114	13	287		1	9
ands 6,110 -24 7 139 216 694 428 371 842 366 520 1,077 924  r 2,060 4 13 61 104 305 163 161 483 289  er 261 6 69 163 163 163 163 163 163 163 30 30 30 30 30	r 2,060 4 13 61 104 89 89 89 89 89 90 6 13 6 61 193 60 13 6 61 193 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90	seedling		54	7	93	145	401	97	-71	82	7	28	1	1	*	1
r 2,060 4 13 61 104 305 163 161 483 289 er 261 163 163 68 er 261 30 163 89 er 30 er 38 er 2 6 er 1 193 er 314 193 324 483 289 er 314 193 324 483 289	r 2,060 4 13 61 104 81 89 8 89 89 89 89 89 89 89 89 89 89 89 89 8			24	7	139	216	694	428	371	842	366	520	1,077	924	550	2
2,060 4 13 61 104 305 163 161 483 289 261 89 163 163 30 38 2 6 193 314 193 324 483 289	2,060 4 13 61 104 261 89 38 2 6 13 6 61 193																
261 89 9 163 30 2,359 6 13 6 61 193 314 193 324 483 289	261 89 38 2 6 2,359 6 13 6 61 193		. 090	!	4	13	!	19	104	!	305	163	191	483	289	569	208
2,359 6 13 6 61 193 314 193 324 483 289	2,359 6 13 6 61 193				*	;	!	1	88	1	6	-	163	1	1	*	8
2,359 6 13 6 61 193 314 193 324 483 289	2,359 6 13 6 61 193	seedling	38	-	2	*	9	;	*	:	*	30	1		9	-	•
				!	9	13	9	61	193	!	314	193	324	483	289	269	208

(Table 77 continued)

Forest type and	A11					Be	Basal-area		class (square f	feet per	acre)				
stand-size class	classes 0-10	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Willow															
Sawtimber	4	!	1	!	8	1	-	1	9	1	1	4	1	1	1
Poletimber	10	1	;	10	1	!	;	;	1	!	ì	1	!	1	î
Sapling & seedling	31	2		1	;	1	59	:	;	;	ì	1	1	*	1
All stands	45	2	1	10	1	- [	. 29	1	1	;	1	4	1	;	1
Lowland plains hardwoods	1				0	000	623	830	020	100	008	1001	100		
Sawtimber	4,/59	!	1	12	29	208	032	304	020	679	764	1,22,1	697	!	1
Poletimber	1,138	!	18	24	ŧ	1	111	80	181	115	87	522	*	1	-
Sapling & seedling	381	;	10	8	61	196	49	19	38	-	-	•	;	;	1
All stands	6,278	;	28	44	123	404	792	463	877	940	579	1,743	285	1	1
Upland elm-ash-locust															
Sawtimber	272	ł	1	٣	4	7	64	47	20	70	27	1	!	1	1
Poletimber	388	1	!	1	6	!	27	135	21	41	56	129	1	;	į
Sapling & seedling	378	77	95	36	17	94	48	23	46	16	2	!	!	;	1
All stands	1,038	-2	95	39	30	101	139	202	117	127	28	129	1	1	-
Nonstocked	112	2	44	4	15	32	15	1	1	1	;	!	;	;	
All types															
Sawtimber	14,823	}	4	94	169	745	1,249	1,062	2,165	2,275	1,389	2,920	1,724	819	208
Poletimber	6,026	1	18	35	∞	96	693	682	748	729	618	2,239	160	1	8
Sapling & seedling	2,269	-61	120	261	252	950	331	59	176	93	88	1	1	1 2	8
Nonstocked	112	2	44	4	15	32	15	1	;	1	†	!	;	-	1
All stands	23,230	-59	186	394	444	1,823	2,288	1,803	3,089	3,097	2,095	5,159	1,884	819	208

Table 78.--Net annual growth of sawtimber on commercial forest land by forest type, stand-size class, and basal-area class, Kansas, 1980 (In thousand board feet)1/

						ă	pasal-alea	בומסט וסל	rigss (shage leet per acre	י אבי מרוב					
stand-size class	classes	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Eastern redcedar-hardwood	p														
Sawtimber	1	1	1	į	;	i	;	;	;	;	;	;	1	;	;
Poletimber	35	1	;	;	1 2	;	1 7	16	19	;	1	1	!	;	1
Sapling & seedling	99	ì	1	17	10	30	7	1	1	;	;	!	;	1	1
All stands	66	!	;	17	10	30	7	16	19	;	;	:	1	1	;
Oak-hickory															
Sawtimber	11,265	;	;	;	99	1,329	1,180	1,191	1,273	2,974	664	2,162	426	1	1
Poletimber	3,840	1 6	; '	1 1	1 !	29	253	253	515	857	159	1,643	131	;	f
Sapling & seedling	295	-204	-3	74	-165	765	85	20	-75	27	00		;	1	1
All stands	15,667	-204	-3	74	-99	2,123	1,518	1,494	1,713	3,858	831	3,805	557	;	1
Post-blackjack oak	1 7 7 3			3			0	,		ŗ					
Sawtimber	153	ł	!	09-	!	1	97	11	16	6/	1 1	1 :	!	ł	1
Poletimber	164	;	;	1	;	;	1	1	31	41	/8	14	1	1	1
Sapling & seedling	11	1	:	1		-	4	7	:	-	* 1			-	1
All stands	328	1	-	09-	-		30	18	128	120	78	14	1	:	1
Upland plains hardwoods															
Sawtimber	1,439	1	1	;	102	95	52	81	201	344	1	î	564	1	;
Poletimber	1,274	1	;	;	;	47	09	99		436	106	569	;	1	1
Sapling & seedling	93	1	;	:	45	19	1		4	28	-		1	!	1
All stands	2,806	1	-	-	144	161	112	137	205	808	106	699	564	1	;
Elm-ash-cottonwood															
Sawtimber	12,797	-	;	219	334	1,398	209	1,070	1,908	1,011	728	1,576	2,419	1,625	1
Poletimber	1,023	1	;	-4	!	42	198	134	97	144	15	397	1	-	8
Sapling & seedling	945	-121	10	246	147	830	197	-536	13	30	129	;	í	1	i .
All stands	14,765	-121	10	461	481	2,270	904	899	2,018	1,185	872	1,973	2,419	1,625	1
Cottonwood															
Sawtimber	8,059	1	22	36	1	170	352	3 0	1,704	469	373	1,654	1,295	1,191	793
Poletimber	273	i	!	1	;	1	311	1	-38	1	;	!	1	!	;
Sapling & seedling	17	1	8	1	1	:	1	-	1	6	-	;	:	1	1
All stands	0 240	i	30	36		170	633		1 666	A70	273	1 651	1 20E	1 101	703

 $\frac{1}{2}$  International  $\frac{1}{4}$ -inch rule.

(Table 78 continued)

Forest type and	LL					Ba	Basal-area class (square feet per acre	class (sq	uare feet	per acre	-				
stand-size class	classes 0-10 11-20	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-120	121-150	151-180	181+
Willow															
Sawtimber	22	1	;	;	!	;	;	}	1	;	;	22	1	;	ŧ
Poletimber	11	1 6	1	11	;	;	!	;	;	1	;	;	1	;	*
Sapling & seedling	121	00	i	*	1	1	113	1	1	;	;	;	;	!	1
All stands	154	80	;	11	1	;	113	:	;	;	-	22		1	1
Lowland plains hardwood															
Sawtimber	15,423	;	;	48	300	693	1,596	1,236	1,600	2,178	2,072	4.594	1,106	;	;
Pole+i" ber	3,353	1	;	19	!	;	1,123	412	799	444	20	536	!	!	;
Sapling & seedling	1,023	1	45	9-	159	470	149	159	47	ł	1	1	;	1	1
All stands	19,799	;	45	61	459	1,163	2,868	1,807	2,446	2,622	2,092	5,130	1,106	:	1
Upland elm-ash-locust															
Sawtimber	921	8	;	80	10	12	30	116	141	537	29	1	;	!	1
Poletimber	417	;	;	!	195	1 1	53	83	6	က က	61	13	1	1	8
Sapling & seedling	476	1	9	29	75	135	87	1	31	11	13	1	8 2	1	1
All stands	1,814	1	99	29	280	147	170	199	181	551	141	13	:		;
Nonstocked	526	1	159	8	34	20	22	1	1	;	:	1	:	1	;
All types															
Sawtimber	50,079	1	22	251	812	3,697	3,745	3,705	6,924	7,592	3,904	10,008	5,810	2,816	793
Poletimber	10,390	!	1	56	195	118	1,998	954	1,432	1,925	439	3,172	131	1	i
Sapling & seedling	3,312	-317	125	390	268	2,249	642	-320	20	105	150	;	*	1	1
Nonstocked	526	1	159	8	34	20	2	1	1	;	-	1		1	1
All stands	64,037	-317	306	675	1,309	6,114	6,390	4,339	8,376	9,622	4,493	13,180	5,941	2,816	793
										1					

Table 79.--Net annual growth of growing stock on wooded strips by species group and Forest Survey Unit, Kansas, 1980

	_	For	est Summey U	nit
		North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	107	11		96
Total	107	11		96
HARDWOODS				
Bur oak	157	11	21	125
Select white oak	41		41	
Other white oak				
Select red oak	45	8	37	
Other red oak	24	9	15	
Select hickory	9	8 7	1	
Other hickory	22	7	15	
Pecan	10		10	
Hard maple				
Soft maple	120	95	25	
Ash	360	96	70	194
Cottonwood	-32	92	-316	192
Basswood	26	26		
Elm	199	128	66	5
Black walnut	107	75	32	
Willow	34	20	6	8
Boxelder	99	71	28	
Hackberry	840	201	411	228
Sycamore	88	. 53	35	
Other hardwoods	196	153	43	
Total	2,345	1,053	540	752
All species	2,452	1,064	540	848

Table 80.--Net annual growth of sawtimber on wooded strips by species group and Forest Survey Unit, Kansas, 1980

(In thousand board feet) $\frac{1}{2}$ 

	_	For	est Survey U	nit
	-	North-	South-	
	All	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	53			53
Total	53			53
HARDWOODS				
Bur oak	581	36	81	464
Select white oak				
Other white oak				
Select red oak	99		99	
Other red oak	78	52	26	
Select hickory			-	
Other hickory	20		20	
Pecan	28		28	
Hard maple				
Soft maple	221	174	47	
Ash	1,272	865	90	317
Cottonwood	1,806	802	-624	1,628
Basswood	12	12		
Elm	154	72	82	
Black walnut	180	137	43	
Willow	1,690	531	27	1,132
Boxelder	159	44	115	
Hackberry	2,178	730	1,173	275
Sycamore	186	60	126	
Other hardwoods	488	356	132	
Total	9,152	3,871	1,465	3,816
All species	9,205	3,871	1,465	3,869

 $<sup>\</sup>frac{1}{2}$ International  $\frac{1}{4}$ -inch rule.

Table 81.--Timber removals from growing stock on commercial forest land, by species group and Forest Survey Unit, Kansas, 1980

		Fore	est Survey U	nit
	-	North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	89	40	14	35
Total	89	40	14	35
HARDWOODS				
Bur oak	1,303	604	360	339
Select white oak	700	434	266	
Other white oak	480	41	439	
Select red oak	1,195	573	604	18
Other red oak	703	341	362	
Select hickory	168	115	53	
Other hickory	106	58	48	
Pecan	85		85	
Hard maple	15	3	12	
Soft maple	500	201	297	2
Ash	1,629	451	888	290
Cottonwood	1,935	893	559	483
Basswood	17	17		
Elm	685	280	337	68
Black walnut	1,307	787	508	12
Hackberry	1,220	437	672	111
Sycamore	320	70	237	13
Other hardwoods1/	1,526	694	530	302
Total	13,894	5,999	6,257	1,638
All species	13,983	6,039	6,271	1,673

 $<sup>\</sup>frac{1}{2}$  Includes willow and boxelder species groups.

Table 82.--Timber removals from sawtimber on commercial forest land, by species group and Forest Survey Unit, Kansas, 1980

(In thousand board feet) $\frac{1}{}$ 

	_	Fore	est Survey U	nit
	_	North-	South-	
	A11	eastern	eastern	Western
Species group	Units	Unit	Unit	Unit
SOFTWOODS				
Eastern redcedar	324	132	30	162
Total	324	132	30	162
HARDWOODS				
Bur oak	4,771	2,002	1,721	1,048
Select white oak	1,881	1,203	678	
Other white oak	830	94	736	
Select red oak	3,529	1,620	1,832	77
Other red oak	2,199	1,082	1,117	
Select hickory	527	344	183	
Other hickory	257	157	100	
Pecan	394	4	389	1
Hard maple	41	8	33	
Soft maple	2,126	699	1,422	5
Ash	5,484	1,538	3,058	888
Cottonwood	9,154	4,334	3,146	1,674
Basswood	66	65	1	
Elm	2,538	936	1,362	240
Black walnut	8,281	4,977	3,204	100
Hackberry	4,890	1,585	2,879	426
Sycamore	1,611	321	1,220	70
Other hardwoods <sup>2</sup> /	4,350	1,951	1,504	895
Total	52,929	22,920	24,585	5,424
All species	53,253	23,052	24,615	5,586

 $<sup>\</sup>frac{1}{2}$ International  $\frac{1}{4}$ -inch rule.

 $<sup>\</sup>frac{2}{}$  Includes willow and boxelder species groups.

Table 83.--Timber removals  $\frac{1}{}$  from growing stock and sawtimber on commercial forest land by species group, Kansas, 1964 and 1980

		g stock		imber
Species group	19642/	1980	19642/	1980
		cubic feet	Thousand be	pard feet <sup>3/</sup>
SOFTWOODS				
Eastern redcedar	21	89		324
Total	21	89		324
HARDWOODS				-
Bur oak	953	1,303	3,604	4,771
Select white oak	120	700	502	1,881
Other white oak	295	480	493	830
Select red oak	156	1,195	169	3,529
Other red oak	492	703	1,455	2,199
Select hickory	330	168	981	527
Other hickory	209	106	479	257
Pecan	72	85	257	394
Hard maple	12	15	4	41
Soft maple	667	500	2,732	2,126
Ash	607	1,629	1,550	5,484
Cottonwood	1,120	1,935	4,183	9,154
Basswood	19	17	11	66
Elm	848	685	2,539	2,538
Black walnut	1,180	1,307	7,240	8,281
Hackberry	626	1,220	2,351	4,890
Sycamore //	259	320	903	1,611
Other hardwoods4/	314	1,526	547	4,350
Total	8,279	13,894	30,000	52,929
All species	8,300	13,983	30,000	53,253

 $<sup>\</sup>frac{1}{R}$ Removals in 1980 are trend-level removals.

 $<sup>\</sup>frac{2}{\text{Figures}}$  have been adjusted from those published after the 1966 survey to conform to 1980 volumes because of changes in survey definitions and procedures.

 $<sup>\</sup>frac{3}{1}$ International  $\frac{1}{4}$ -inch rule.

 $<sup>\</sup>frac{4}{}$  Includes willow and boxelder species groups.

Table 84.--Timber removals from growing stock and sawtimber on commercial forest land by item and species category, Kansas, 1980

GROWING STOCK Species category A11 Elm-0ther Item species Softwoods 0ak hackberry Ash Cottonwood Walnut hardwoods - - - - Thousand cubic feet- - - - - - - -ROUNDWOOD PRODUCTS Saw logs 4,340 66 730 638 336 940 492 1,138 Veneer logs 72 12 60 ----------Cooperage logs 40 --40 Fuelwood 7,577 3,184 1,033 1,034 398 1,928 -Posts 52 18 19 15 1,671 1,198 Total 12,081 84 3,985 1,370 1,338 2,435 LOGGING RESIDUE 755 231 137 69 140 109 69 OTHER REMOVALS 5 1,147 165 165 122 457 233 ALL TIMBER REMOVALS 13,983 89 4,381 1,905 1,629 1,935 1,307 2,737 SAWTIMBER -Thousand board feet $\frac{1}{2}$ ROUNDWOOD PRODUCTS 1,991 3,053 Saw logs 26,269 312 3,358 4,017 6,107 7,431 475 59 Veneer logs ----416 --Cooperage logs 237 237 \_\_ 20,895 8,773 5,324 2,851 1,097 Fuelwood 2,850 --Posts 114 11 62 41 47,990 4,842 7,204 7,847 Tota1 323 12,489 6,867 8,418 LOGGING RESIDUE 1,637 327 125 315 293 434 143 OTHER REMOVALS 3,626 1 394 436 327 1,657 811

53,253

324

13,210

7,428

5,484

9,154

8,281

9,372

ALL TIMBER REMOVALS

 $<sup>\</sup>frac{1}{I}$ International  $\frac{1}{4}$ -inch rule.

Table 85.--Net annual growth and removals of growing stock on commercial forest land by species group, Kansas, 1980

(In thousand cubic feet)

	Net annual	Annual timber
Species group	growth	removals
SOFTWOODS		
Eastern redcedar	471	89
Total	471	89
HARDWOODS		
Bur oak	1,251	1,303
Select white oak	779	700
Other white oak	594	480
Select red oak	1,467	1,195
Other red oak	611	703
Select hickory	467	168
Other hickory	470	106
Pecan	254	85
Hard maple	94	15
Soft maple	941	500
Ash	1,958	1,629
Cottonwood	2,525	1,935
Basswood	199	17
Elm	678	685
Black walnut	2,167	1,307
Hackberry	4,454	1,220
Sycamore 1/	590	320
Other hardwoods <sup>1</sup> /	3,260	1,526
Total	22,759	13,894
All species	23,230	13,983

 $<sup>\</sup>frac{1}{2}$  Includes willow and boxelder species groups.

Table 86.--Net annual growth and removals of sawtimber on commercial forest land by species group, Kansas, 1980

(In thousand board feet) $\frac{1}{2}$ 

Species group	Net annual growth	Annual timber removals
	growen	1 CIIIO V d 1 S
SOFTWOODS	90	201
Eastern redcedar		324
Total	90	324
HARDWOODS		
Bur oak	4,255	4,771
Select white oak	2,041	1,881
Other white oak	460	830
Select red oak	7,275	3,529
Other red oak	1,179	2,199
Select hickory	953	527
Other hickory	1,060	257
Pecan	1,113	394
Hard maple	607	41
Soft maple	3,170	2,126
Ash	4,768	5,484
Cottonwood	8,773	9,154
Basswood	360	<b>6</b> 6
Elm	-2,234	2,538
Black walnut	5,911	8,281
Hackberry	13,246	4,890
Sycamore 2/	2,403	1,611
Other hardwoods <sup>2</sup> /	8,607	4,350
Total	63,947	52,929
All species	64,037	53,253

 $<sup>\</sup>frac{1}{4}$ -inch rule.

 $<sup>\</sup>frac{2}{I}$  Includes willow and boxelder species groups.

Table 87.--Net annual growth and removals of growing stock on commercial forest land by ownership class and softwoods and hardwoods, Kansas, 1980

	Net	t annual gro	wth	Anı	nual timber r	emovals
Ownership class	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
PUBLIC						
National Forest						
Misc. federal	1,020	2	1,018	13		13
Indian	25		25	6		6
State	316		316			
County & municipal	152		152			
Total	1,513	2	1,511	19		19
PRIVATE Farmer and						
Misc. private	21,717	469	21,248	13,964	89	13,875
All owners	23,230	471	22,759	13,983	89	13,894

Table 88.--Net annual growth and removals of sawtimber on commercial forest land by ownership class and softwoods and hardwoods, Kansas, 1980

## (In thousand board feet) $\frac{1}{}$

	Net	t annual grow	wth	Anı	nual timber r	emovals
Ownership class	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
PUBLIC						
National Forest						
Misc. federal	2,658		2,658	33		33
Indian	59		59	17		17
State	866		866			
County & municipal	988		988			
Total	4,571		4,571	50		50
PRIVATE						
Farmer and Misc. private	59,466	90	59,376	53,203	324	52,879
All owners	64,037	90	63,947	53,253	324	52,929

 $<sup>\</sup>frac{1}{1}$ International  $\frac{1}{4}$ -inch rule.

Table 89.--Annual mortality of growing stock on commercial forest land by softwoods and hardwoods, Kansas, 1964 and 1980

(In thousand cubic feet)

Species	1964 <sup>1</sup> /	1980	_
Softwoods		28	
Hardwoods	3,280	3,739	
All species	3,280	3,767	

<sup>1/</sup>Figures have been adjusted from those published after the 1965 survey to conform to 1980 volumes because of changes in survey definitions and procedures.

Table 90.--Annual mortality of growing stock on commercial forest land by species group and cause, Kansas, 1980

					Cau	se		
Species group	All causes	Insects	Disease	Fire	Animals	Weather	Suppression	Unknown and other
SOFTWOODS								
Eastern redcedar	28						28	
Total	28				,		28	
HARDWOODS								
Bur oak	220		117	4		6		93
Select white oak	94		22		28			44
Other white oak	46			12				34
Select red oak	210		77			42		91
Other red oak	216		115			52		49
Select hickory	39		29				1	10
Other hickory	10		7					3
Pecan					~-			~~
Hard maple			***			~~		40.40
Soft maple	12					~~		12
Ash	177		20			10	3	144
Cottonwood	853	122	91		66	153		421
Basswood	6		6					~~
Elm	1,283	7	865	8		27		376
Black walnut	223		55	5				163
Willow	57		17					40
Boxelder	40					35	5	
Hackberry	158		93	6				59
Sycamore	69							69
Other hardwoods	26							26
Total	3,739	129	1,514	35	94	325	8	1,634
All species	3,767	129	1,514	35	94	325	36	1,634

Table 91.--Annual mortality of sawtimber on commercial forest land by species group and cause, Kansas, 1980

## (In thousand board feet) $\frac{1}{}$

					Cau	ise		
	A11							Unknown
Species group	causes	Insects	Disease	Fire	Animals	Weather	Suppression	and other
SOFTWOODS								4.14 001161
Eastern redcedar	157		~ ~				157	
Total	157						157	
HARDWOODS							137	
Bur oak	484		119	21		28		316
Select white oak	247		93		133			21
Other white oak	91			23				68
Select red oak	660		356			174		130
Other red oak	1,145		624			292		229
Select hickory	71		26			252		45
Other hickory	34		34		~~		-	45
Pecan	→ ~							
Hard maple		~~						
Soft maple	56							56
Ash	716		89			48		579
Cottonwood	2,651	614	371		332	459		875
Basswood								
Elm	4,295	30	2,944			126		1,195
Black walnut	773		135	26				612
Willow	85		85					
Boxelder			~~					
Hackberry	599		397	30				172
Sycamore	195							195
Other hardwoods	60							60
Total	12,162	644	5,273	100	465	1,127		4,553
all species	12,319	644	5,273	100	465	1,127	157	4,553

 $<sup>\</sup>frac{1}{2}$  International  $\frac{1}{4}$ -inch rule.

Table 92.--Annual mortality of growing stock and sawtimber on commercial forest land by ownership class and softwoods and hardwoods, Kansas, 1980

		Growing stock	k		Sawtimber	
Ownership class	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	<u>T</u> I	housand cubic	feet	<u>Th</u>	ousand board f	eet <sup>1/</sup>
National Forest						
Miscellaneous federal	36		36	127		127
Indian						
State						
County and municipal						
Farmer	2,027	28	1,999	7,104	157	6,947
Misc. private	1,704		1,704	5,088		5,088
All owners	3,767	28	3,739	12,319	157	12,162

 $<sup>\</sup>frac{1}{2}$ International  $\frac{1}{4}$ -inch rule.

Table 93.--Output of timber products by product, softwoods and hardwoods, and source of material, Kansas, 1980

Droduct and coft.	1				Koundwoo	Koundwood products			
woods and hardwoods	spo		Total	Growi	Growing stock	Nongro	Nongrowing stock	Plant	Plant byproducts
	Standard	No. of	Thousand	No. of	Thousand	No. of	Thousand	No. of	Thousand
SAW LOGS	53   10	3	250 21002	53	200	23	200	23	200
Softwood	Thousand 1/	321	99	321	99	;	;	;	;
Hardwood	board feet-/	31,565	5,036	26,789	4,274	4,776	762	;	:
Total		31,886	5,102	27,110	4,340	4,776	762	1	:
VENEER LOGS	Thousand	;	1	1	!	;	!	;	;
Hardwood	board feet 1/	537	81	473	72	64	6	:	;
Total		537	81	473	72	64	6	-	-
COOPERAGE	Ē								
Sortwood	board feet1/	264	44	240	40	24	4	: :	: :
Total		264	44	240	40	24	4		
FUELWOOD Softwood	Standard	160	11	ł 1	. !	;	;	160	=
Hardwood	cords2/	272,926	19,098	108,285	7,577	146,715	10,266	17,926	1,255
Total	•	273,086	19,109	108,285	7,577	146,715	10,266	18,086	1,266
POSTS	Thousand	35	56	24	18	11	∞	;	;
Hardwood	pieces	315	177	61	34	254	143		-
Total		350	203	85	52	265	151	!	-
OTHER3/		ч	¥			;		v	٧
Hardwood	cubic feet	470	470		! !	; ;	1	470	470
Total		476	476			-		476	476
ALL PRODUCTS	Thousand	1	109	}	84	;	∞		17
Hardwood	cubic feet	1	24,906	*	11,997	1	11,184	1	1,725
Total		:	25,015		12,081	1	11,192	-	1,742

 $\frac{1}{2}$  International 1/4-inch rule.

 $\frac{2}{}$ Unpeeled, 128 cubic-foot basis.

 $\frac{3}{2}/\operatorname{Includes}$  charcoal wood, livestock bedding, mulch, and specialty items.

Table 94.--Output of roundwood products by product, softwoods and hardwoods, and source of material, Kansas, 1980

(In thousand cubic feet)

s dead trees  20 20 20	Product and soft-	ATT		Growing-stock trees	trees	Rough and	Salvable	Other
And and split)  1	woods and hardwoods	sonrces	Total	Sawtimber	Poletimber	rotten trees	dead trees	sources
al 5,036 4,274 4,243 31 547 20  al 5,102 4,340 4,309 31 547 20  al and split)  26 18 40 40 4  al and split)  27 2 20 20 6  al and split)  28 4,420 4,379 41 53 657 21  29 8 4 4,20 4,451 53 400 3,734 266  29 8 8 757 4,177 3,400 3,734 266  29 8 8 757 4,177 3,400 3,734 266  29 8 8 751 4,177 3,400 3,734 266  29 8 8 751 4,177 3,400 3,734 266  29 8 8 751 4,177 3,400 3,734 266  29 8 8 751 4,177 3,400 3,734 266  20 3,181 11,997 8,556 3,441 4,291 286	INDUSTRIAL PRODUCTS							
al 5,086 4,244 4,243 31 547 20  s	Saw Togs	99	9	33				
s   5,036	DOOMILOS	00	00	00	1 :		:	1
al 5,102 4,340 4,309 31 547 20  s	Hardwood	5,036	4,274	4,243	31	547	20	195
al and split)  Add and split	Subtotal	5,102	4,340	4,309	31	547	50	195
al and split)  Add and split and split are as a second split and split are as a second s	Veneer logs							
al 81 72 72	Softwood	;	;	!	;	:	;	;
al and split)  al 44 40 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 1	Hardwood	81	72	72	;		;	6
al and split)  26 18 6 12 4 4 4 4 4 4 4 -	Subtotal	81	72	72				6
al and split)  26	Cooperage							
and and split) $ \begin{array}{ccccccccccccccccccccccccccccccccccc$	Softwood	;	;	!	;	;	;	!
al and split)  26	Hardwood	44	40	40	;	7	!	!
nd and split)  26 18 6 12 1  177 34 24 10 6 6  177 34 4,420 4,379 41 53 557 20  5,338 4,420 4,379 41 53 557 20  5,430 4,504 4,451 53 657 20  17,943 7,577 4,177 3,400 3,734 266  17,843 7,577 4,177 3,400 3,734 266  23,181 11,997 8,556 3,441 4,291 286  23,273 12,081 8,628 3,453 4,291 287	Subtotal	44	40	40	-	4		:
al products $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Posts (Round and split)							
rial products $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Softwood	56	18	9	12	:	1	7
al products	Hardwood	177	34	24	10	9	!	137
Frial products 92 84 72 12 1 557 20 50 41 5,338 4,420 4,379 41 53 557 20 50 5,430 4,504 4,451 53 557 21 51 517,843 7,577 4,177 3,400 3,734 266 51 52,3181 11,997 8,556 3,441 4,291 286 23,273 12,081 8,628 3,453 4,291 287	Subtotal	203	52	30	22	9	1	144
5,338     4,420     4,379     41     557     20       5,430     4,504     4,451     53     557     21       17,843     7,577     4,177     3,400     3,734     266       17,843     7,577     4,177     3,400     3,734     266       23,181     11,997     8,556     3,441     4,291     286       23,273     12,081     8,628     3,453     4,291     287	All industrial products							
5,338         4,420         4,379         41         557         20           5,430         4,504         4,451         53         557         21                   17,843         7,577         4,177         3,400         3,734         266           17,843         7,577         4,177         3,400         3,734         266           23,181         11,997         8,556         3,441         4,291         286           23,273         12,081         8,628         3,453         4,291         287	Softwood	95	84	72	12	:		7
5,430       4,504       4,451       53       557       21         17,843       7,577       4,177       3,400       3,734       266         17,843       7,577       4,177       3,400       3,734       266         23,181       11,997       8,556       3,441       4,291       286         23,273       12,081       8,628       3,453       4,291       287	Hardwood	5,338	4,420	4,379	41	257	20	341
17,843       7,577       4,177       3,400       3,734       266         17,843       7,577       4,177       3,400       3,734       266         92       84       72       12       12       12       12         23,181       11,997       8,556       3,441       4,291       286         23,273       12,081       8,628       3,453       4,291       287	Total	5,430	4,504	4,451	53	557	21	348
17,843     7,577     4,177     3,400     3,734     266       17,843     7,577     4,177     3,400     3,734     266       23,181     11,997     8,556     3,441     4,291     286       23,273     12,081     8,628     3,453     4,291     287	FUELWOOD							
17,843         7,577         4,177         3,400         3,734         266           17,843         7,577         4,177         3,400         3,734         266           23,181         11,997         8,556         3,441         4,291         286           23,273         12,081         8,628         3,453         4,291         287	Softwood	1	;	;	;	:	;	1
17,843         7,577         4,177         3,400         3,734         266           92         84         72         12          1           23,181         11,997         8,556         3,441         4,291         286           23,273         12,081         8,628         3,453         4,291         287	Hardwood	17,843	7,577	4,177	3,400	3,734	566	6,266
92 84 72 12 1 23,181 11,997 8,556 3,441 4,291 286 23,273 12,081 8,628 3,453 4,291 287	Total	17,843	7,577	4,177	3,400	3,734	266	6,266
92 84 72 12 23,181 11,997 8,556 3,441 4,291 286 23,273 12,081 8,628 3,453 4,291 287	ALL PRODUCTS							
23,181     11,997     8,556     3,441     4,291     286       23,273     12,081     8,628     3,453     4,291     287	Softwood	92	84	72	12	1		7
23,273 12,081 8,628 3,453 4,291 287	Hardwood	23,181	11,997	8,556	3,441	4,291	586	6,607
	Total	23,273	12,081	8,628	3,453	4,291	287	6,614

Table 95.--Timber products from roundwood by species group and product, Kansas, 1980

	Cooperage logs	Thousand cubic		-	-		44	;	-	;	:	:	;	;	;	;	1	;	;	1	44	44
	Cooper	Thousand board1/ feet1/		-	1		264	1	1	1	;	1	1	!	;	1	1	1	;	1	264	264
	ts	Thousand cubic feet		56	26		14	13	1	;	!	;	;	;	;	;	;	;	!	150	177	203
	Posts	Thousand		35	35		56	27	;	;	;	;	1	!	1	;	1	;	;	262	315	350
	Fuelwood	Thousand cubic feet					4,030	3,111	534	!	52	533	2,318	892	17	894	178	1,427	179	3,705	17,843	17,843
	Fue	Cords		-	1		57,573	44,427	7,650	!	400	7,650	33,150	12,750	250	12,750	2,550	20,400	2,550	52900	255,000	255,000
	logs	Thousand cubic		*	1		12	1	1	:	1.	1	;	;	;	:	69	;	;	1	81	81
	Veneer logs	Thousand board feet1/		-	1		59	;	1	;	;	1	;	1	;	1	478	;	;	ţ	537	537
	ogs	Thousand cubic Feet		99	99		269	521	11	22	;	246	367	940		222	1,362	504	218	18	5,036	5,102
	Saw logs	Thousand board feet1/		321	321		3,225	2,931	74	348	;	1,543	2,183	6,107	10	1,458	8,955	3,193	1,417	121	31,565	31,886
A11	products	Thousand cubic Feet		92	92		4,669	3,645	545	22	25	779	2,685	1,832	18	1,116	1,609	1,931	397	3,873	23,181	23,273
	Species group		SOFTWOODS	Eastern redcedar	Total	HARDWOODS	White oak	Red oak	Hickory	Pecan	Hard maple	Soft maple	Ash	Cottonwood	Basswood	EJm	Black walnut	Hackberry	Sycamore	Other hardwoods 2/	Total	All species

1/International 1/4-inch rule.

 $<sup>\</sup>underline{2}/\mathrm{Includes}$  willow and boxelder species groups.

Table 96.--Volume of primary plant residue by type of use and kind of material, Kansas, 1980 (In thousand cubic feet)

			Kind of wo	od residue				
	To	tal	Coar	se <sup>1</sup> /	Fir	ne <u>2</u> /	Bar	rk
Type of use	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
Fiber products		298.1		298.1				
Industrial fuel		677.8		433.3		244.5		279.8
Domestic fuel	11.2	577.0	10.6	536.5	0.6	40.5	3.7	335.4
Miscellaneous3/	6.1	469.6	0.2	13.0	5.9	456.6	0.1	7.2
Not used4/	6.3	664.8	4.1	413.8	2.2	251.0	1.5	455.1
Total	23.6	2,687.3	14.9	1,694.7	8.7	992.6	5.3	1,077.5

 $<sup>\</sup>frac{1}{2}$ Suitable for chipping such as slabs, edgings, veneer cores, etc.

 $<sup>\</sup>frac{2}{N}$  Not suitable for chipping such as sawdust, veneer clippings, etc.

 $<sup>\</sup>frac{3}{\text{Livestock}}$  bedding, mulch, small dimension, charcoal, and specialty items.

 $<sup>\</sup>frac{4}{I}$  Includes residue burned as waste.

Table 97.--All live shrub biomass yields on commercial forest land by species group and forest type, Kansas, 1981

(In pounds per acre green weight)

Post-   Upland   Fastern   Post-   Upland   Fastern   Facteddar-   Oak-   Dlatins   Farlandood   History   Oak   Post-   Dlatins   Farlandood   History   Oak   Parlandood   Oak
redcedar Gak- blacklack plains Fin-ash- edcedar 244 11 2 13 3 9- ple
edcedar 244 11 2 13 3 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
edcedar 244 11 2 13 3 3 9 9 10 9 10 9 10 9 10 9 10 9 10
y 5 14 5 12 13 39  d 1,411 215 55 164 253 239  eam
maple
mapie hus rry hickory
Think thickory
runt hickory
rint hickory
rick hickory 5 14 2 29 5 18 20 11
rarry  na redbud  na redbud  na redbud  na redbud  na redbud  na redbud  na sh
ru redbud
ash asswood 1,411 215 55 164 253 239  ash ash ash ash ash ash ash asswood 4,611 215 55 164 253 239  ash ash asswood 1,411 215 55 164 253 239  ash asswood 2,4 15 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
rear dogwood 1,411 215 55 104 253 253 253 ash
ash ash ash ash ash coust ash coust ash coust ash and proportion and ash
ash octations as ash octation ash octations as ash octation as as as as a contraction as as as as a contraction as as as a contraction as as as as as a contraction as
ash ocust  ocust  walnut  ocust  walnut  observy  n cottonwood  n cottonwood  oak  in cottonwood
ocust walnut
walnut
cherry
The property of the property o
ruberry
rn hophornbeam 18 4 3 18 celebrate an exottonwood 18 4 11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
cherry
cherry
therry 11 2 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
oak
oak
oak           46
the noak 24 15 1 5 4 1 1 5 5 8 8 8 5 8 8 8 5 8 8 8 5 8 8 8 8
prin oak 24 15 1 5  prin red oak 5 8 8  oak 1 5  1 hazel 931 32  y ash  bush  thum  fras  3
rin red oak 5 8 8 5 30 58 10 10 10 10 10 10 10 10 10 10 10 10 10
Joseph Dark Mark Mark Mark Mark Mark Mark Mark M
June 1 1 2 2 2 2 2 2 2 3 1 3 2 2 2 2 3 4 3 4 4 6 66 6 7 2 4 9 3 3 9 3 1 4 5 5 6 6 6 6 7 2 4 9 3 3 9 1 4 1 5 6 6 6 6 7 2 7 4 9 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
y ash
y ash 30 58  hum 5 1 19  hush 4 2  rras 2 2  rras 3 15  ran basswood 3 15  ran elm elm 46 66 22 49
hum 5 1 19 39 22 28 1 7 hbush 4 2 reas 3 15 an basswood 3 15 an elm elm 46 66 22 49
hush
sh
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Total 2,707 834 200 493 582 474 2,649

(Table 97 continued)

					Forest type	type				
	Eastern redcedar-	0ak-	Post- blackjack	Upland plains	Elm-ash-			Lowland plains	Upland elm-ash-	Non-
Species	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
LOW SHRUBS										
Virginia creeper	2	7	3		1	30	1	က	1	;
Gooseberry-currant	1	∞	;	;	12	2	;	6	2	;
Raspberry-blackberry	;	7		;	;	;	00	П	m	1
Rose	1	٣	;	;		į	;	;	9	4
American bladdernut	10	က	;	;		;	;	!	;	3
Bilberry-blueberry	3 8	2	!	;	1	7	Î	1	1	1
Honeysuckle	;	;	;	7	7	13	1	9	2	;
Buckbrush	28	119	186	166	128	18	129	150	155	59
Poison ivy	1	9	2	2	10	28	1	80	4	9
Pipe-vine	!	;	2	1	;	;	;	;	;	*
Moonseed	1	4	;	1	•	;	;	က	;	;
Greenbrier	i	î	9	;	;	က	1		Н	!
Grape	1	!	;	;	;	2	;	2	!	1
Total	09	152	194	177	160	126	137	183	173	69
All shrub species	2,767	986	394	670	742	009	2,786	908	1,065	258
Number of plots $\frac{1}{2}$	20	592	56	42	206	32	4	213	06	33

 $1/\mathrm{Number}$  of plots by forest type from which average yields were derived.

Table 98.--All live tree biomass yields on commercial forest land by species group and forest type, Kansas, 1981

(In pounds per acre green weight)

					Forest type	type				
	Eastern redcedar-	Oak-	Post- blackjack	Upland	Elm-ash-			Lowland	Upland elm-ash-	Non-
Species	hardwood	hickory	oak	hardwoods	cottonwood	Cottonwood	Willow	hardwoods	locust	stocked
SOFTWOODS										
Eastern redcedar	13,952	253	1	1,136	28	:	;	225	519	218
Total	13,952	253	ì	1,136	28		;	225	519	218
HARDWOODS										
Bur oak	1,310	13,214	1,831	10,067	2,209	1	;	10,714	522	1,586
Select white oak	5,363	16,310	235	3,338	831	1-	;	666	1,243	!
Other white oak	2,824	2,952	69,507	790	;	;	1	1 2	62	;
Select red oak	294	15,010	4,359	1,743	606	1	;	1,605	1,835	175
Other red oak	;	9,742	10,794	959	548	53	1	719	488	663
Select hickory	523	6,233	1,444	658	762	1	1 7	869	688	149
Other hickory	1	3,273	1,289	1,985	611	1 1	1	1,831	145	!
Pecan	1	3,185	1	315	621	;	;	96	349	1
Hard maple	1	935	;	î	472	;	;	79	364	;
Soft maple	8 8	127	;	1	5,336	388	1	1,877	186	148
Ash	265	3,014	1	2,354	17,211	2,504	5,626	5,155	3,565	2,161
Cottonwood	113	452	-	1,305	11,942	131,993	8,327	1,951	1,850	2,236
Basswood	1	1,082	i	3,152	188	1,266	1	319	447	!
Elm	2,899	4,530	913	7,587	10,127	1,787	1,534	7,445	11,455	6,111
Black walnut	3,832	4,845	1,105	16,248	2,555	842	1	14,537	3,238	386
Willow	1	113	1 1	107	4,065	1,925	40,718	360	557	377
Boxelder	;	205	;	713	5,834	1,781	1,741	2,875	406	1,153
Hackberry	1,232	2,504	274	13,739	6,751	1,522	170	29,074	3,111	1,528
Sycamore	!	924	1	619	2,375	477	1	3,595	553	254
Other hardwoods	1,561	2,473	516	6,651	9,389	8,505	1,498	8,726	9,315	7,547
Noncommercial species		3,541	429	11,043	4,955	45	1	3,816	5,448	6,534
Total	27,711	94,664	95,696	83,373	87,691	153,088	59,614	96,470	45,827	31,008
All species	41,663	94,917	95,696	84,509	87,719	153,088	59,614	96,695	46,346	31,226
Number of plots $\frac{1}{2}$	20	265	27	42	206	37	4	213	06	33

 $\pm 1/\mathrm{Number}$  of plots by forest type from which average yields were derived.

Table 99.--All live tree biomass on commercial forest land by species group and forest type, Kansas, 1981

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						Forest	t type				
	A11	Eastern redcedar-	0ak-	Post- blackjack	Upland plains	Elm-ash-	400	2011-21	Lowland plains	Upland elm-ash-	Non-
Species	types	nardwood	nickory	Oak	nardwoods	COLLONWOOD	COLTONWOOD	MOLLEY	Harawoods	100ms c	Stocked
SOFTWOODS Eastern redcedar	327,473	191,845	40,070	1	28,064	4,008	;	;	29,936	28,607	4,943
Total	327,473	191,845	40,070	1	28,064	4,008	1	î	29,936	28,607	4,943
HARDWOODS											
Bur oak	4,195,728	18,006	2,091,706	28,289	248,662	319,853	1	1	1,424,444	28,772	35,996
Select white oak	3,063,270	73,746	2,581,779	3,628	82,460	120,304	1	1	132,779	68,574	I
Other white oak	1,602,916	38,832	467,252	1,073,883	19,513	1	;	î	1	3,436	1
Select red oak	2,940,607	4,037	2,375,982	67,344	43,040	131,694	;	1	213,358	101,190	3,962
Other red oak	1,951,281	1		166,773	23,692	79,286	1,794	1	95,554	26,937	15,042
Select hickory	1,276,927	7,190	986,708	22,309	16,241	110,375	1 1	1	92,792	37,933	3,379
Other hickory	926,926		518,191	19,908	49,021	88,421	1	Ť	243,396	7,989	-
Pecan	633,788	I I	504,246	!	7,786	89,917	1	İ	12,575	19,264	1
Hard maple	246,808	1	147,954	1	1	68,317	1	1	10,448	20,089	!
Soft maple	1.069,121	1	20,155	;	1	772,645	13,213	1	249,481	10,270	3,357
Ash	4,063,618	8,210	477,086	!	58,152	2,492,180	85,263	11,814	685,297	196,554	49,062
Cottonwood	6,758,532	1,560	71,515	1 1	32,237	1,729,227	4,494,369	17,486	259,323	102,048	50,767
Basswood	386,444	1	171,258	1	77,858	27,178	43,118	1	42,362	24,670	1
Elm	4.249,130	39,858	717,096		187,401	1,466,383	60,844	3,221	989,815	631,686	138,719
Black walnut	3,756,931	52,690	766,988	17,073	401,339	369,970	28,655	1	1,932,843	178,600	8,773
Willow	847,383	!	17,939		2,632	588,569	65,544	85,509	47,907	30,718	8,565
Boxelder	1,390,074	1	32,515	!	17,602	844,819	60,639	3,657	382,291	22,376	26,175
Hackberry	5,858,598	16,942	396,428	4,240	339,359	977,604	51,832	358	3,865,563	171,587	34,685
Sycamore	1,035,946	1	146,290		15,292	343,938	16,250	1	477,916	30,488	5,772
Other hardwoods	4,082,630	21,463	391,456	7,972	164,268	1,359,554	289,607	3,145	1,160,155	513,686	171,324
Noncommercial species	2,613,645	98,496	560,570	6,633	272,761	717,505	1,519	1	507,371	300,481	148,309
Total	52,950,303	381,030 14	14,985,317	1,432,159	2,059,316	12,697,739	5,212,647	125,190	12,825,670	2,527,348	703,887
All species	53,277,776	572,875	15,025,387	1,432,159	2,087,380	12,701,747	5,212,647	125,190	12,855,606	2,555,955	708,830
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Table 100.---All live tree biomass weight by species group and tree biomass component, Kansas, 1981

## (In green tons)

				Biomass component	ıt	
			Growi	Growing stock	3	Cull
	A11	1- to 5-inch		Tops and		Tops and
Species group	components	trees	Boles	limbs	Boles	limbs
SOFTWOODS						
Eastern redcedar	327,473	185,195	996,97	39,582	16,506	9,224
Total	327,473	185,195	996,97	39,582	16,506	9,224
HARDWOODS						
Bur oak	4,195,728	94,805	2,185,284	1,090,531	501,823	323,285
Select white oak	3,063,270	208,450	1,240,484	603,806	645,782	364,748
Other white oak	1,602,916	302,447	722,386	337,549	149,595	90,939
Select red oak	2,940,607	127,093	1,626,511	806,614	199,869	180,520
Other red oak	1,951,281	113,136	995,059	513,525	194,493	135,068
Select hickory	1,276,927	214,208	636,484	296,069	76,937	53,229
Other hickory	926,926	207,121	429,551	199,223	58,796	32,235
Pecan	633,788	55,007	325,064	158,518	59,919	35,280
Hard maple	246,808	80,305	100,799	51,224	9,013	5,467
Soft maple	1,069,121	37,415	568,119	280,018	98,492	85,077
Ash	4,063,618	643,970	1,798,134	950,412	395,050	276,052
Cottonwood	6,758,532	42,901	4,089,652	1,992,493	350,178	283,308
Basswood	386,444	71,834	160,590	78,287	45,154	30,579
Elm	4,249,130	1,675,863	954,679	460,438	716,885	441,265
Black walnut	3,756,931	462,570	1,810,684	897,619	359,420	226,638
Willow	847,383	920,07	363,096		129,187	102,515
Boxelder	1,390,074	181,341	325,485		412,301	309,451
Hackberry	5,858,598	809, 268	2,696,133	1,312,562	589,163	363,132
Sycamore	1,035,946	36,229	621,590	293	45,665	39,095
Other hardwoods	4,082,630	897,973	1,065,951	520,732	967,516	630,458
Noncommercial species	2,613,645	1,077,736	1	•	1,013,171	522,738
Total	52,950,303	7,498,088	22,715,735	11,186,992	7,018,409	4,531,079
All species	53,277,776	7,683,283	22,792,701	11,226,574	7,034,915	4,540,303

Table 101.--All live tree biomass volume by species group and tree biomass component, Kansas, 1981

(In thousand cubic feet)

		Biomass component					
	All components		Growing stock		Cull		
Species group		1- to 5-inch trees	Boles	Tops and limbs	Boles	Tops and limbs	
SOFTWOODS		a palm menores					
Eastern redcedar	17,701	10,010	4,-160	2,140	892	499	
Total	17,701	10,010	4,160	2,140	892	499	
HARDWOODS							
Bur oak	368,784	34,164	179,043	89,298	40,528	25,751	
Select white oak	109,230	7,157	43,999	21,433	23,271	13,370	
Other white oak	56,862	10,384	25,633	11,992	5,449	3,40	
Select red oak	103,985	4,364	56,954	28,258	7,408	7,00	
Other red oak	68,077	3,829	34,501	17,850	6,940	4,95	
Select hickory	44,514	7,249	22,187	10,323	2.783	1,97	
Other hickory	32,220	7,009	15,003	6,961	2,087	1,160	
Pecan	27,992	2,290	14,413	7,030	2,677	1,58	
Hard maple	9,386	3,022	3,846	1,956	349	213	
Soft maple	46,315	1,615	24,462	12,060	4,322	3,850	
Ash	174,828	27,287	77,186	40,845	17,208	12,30	
Cottonwood	294,105	1,818	177,508	86,499	15,405	12,87	
Basswood	19,326	3,556	8,028	3,915	2,275	1,553	
Elm	167,526	65,145	37,546	18,117	28,636	18,08	
Black walnut	136,037	16,867	65,030	32,282	13,254	8,604	
Willow	36,529	2,917	15,540	7,815	5,658	4,599	
Boxelder	66,021	8,280	15,350	7,619	19,703	15,069	
Hackberry	250,191	37,361	115,285	56,136	25,467	15,942	
Sycamore	41,662	1,456	24,869	11,739	1,907	1,69	
Other hardwoods	174,256	37,481	45,228	22,111	41,738	27,698	
Noncommercial species	110,226	44,859			43,067	22,300	
Total	2,338,072	328,110	1,001,611	494,239	310,132	203,980	
All species	2,355,773	338,120	1,005,771	496,379	311,024	204,479	

Table 102.--Sampling errors  $\frac{1}{}'$  for estimates smaller than the State totals of volume, net growth, removals, and area of commercial forest land, Kansas, 1981

Sampling	Commercial	Growing Stock			Sawtimber		
error	forest area	Inventory	Growth	Removals	Inventory	Growth	Removals
	Thousand						2/
Percent	acres	<u>Mill</u>	ion cubic f	eet	<u>Milli</u>	on board fe	<u>et<sup>2</sup>/</u>
1	7,250.4	8,813.5	825.4	4,046.0	46,135.7	3,349.3	21,493.3
2	1,812.6	2,203.4	206.3	1,011.5	11,533.9	837.3	5,373.3
3	805.6	979.3	91.7	449.6	5,126.2	372.1	2,388.1
4	453.2	550.8	51.6	252.9	2,883.5	209.3	1,343.3
5	290.0	352.5	33.0	161.8	1,845.4	134.0	859.7
10	72.5	88.1	8.3	40.5	461.4	33.5	214.9
15	32.2	39.2	3.7	18.0	205.0	14.9	95.5
20	18.1	22.0	2.1	10.1	115.3	8.4	53.7
25	11.6	14.1	1.3	6.5	73.8	5.4	34.4
50	2.9	3.5	0.3	1.6	18.5	1.3	8.6
100	0.7	0.9	0.1	0.4	4.6	0.3	2.1

 $<sup>\</sup>frac{1}{4}$ At the 68-percent probability level.

 $<sup>\</sup>frac{2}{I}$  International  $\frac{1}{4}$ -inch rule.

Raile, Gerhard K.; Spencer, John S., Jr.

Kansas forest statistics, 1981. Resour. Bull. NC-70. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station; 1984. 124 p.

The third inventory of the timber resource of Kansas shows a 1.4 percent increase in commercial forest area and a 42 percent gain in growing-stock volume between 1965 and 1981. Highlights and statistics are presented on area, volume, growth, mortality, removals, utilization and biomass.

KEY WORDS: Area, volume, growth, mortality, removals.

